RETURN DATE: JUNE 29, 2021	:	SUPERIOR COURT
THE CONNECTICUT LIGHT AND POWER COMPANY d/b/a EVERSOURCE ENERGY	:	
Plaintiff-Appellant	:	JUDICIAL DISTRICT OF NEW BRITAIN
V.	:	
PUBLIC UTILITIES REGULATORY AUTHORITY	:	
Defendant-Appellee	:	JUNE 10, 2021

ADMINISTRATIVE APPEAL

To the Superior Court for the Judicial District of New Britain at New Britain this 10th day of June, 2021, comes Plaintiff-Appellant, The Connecticut Light and Power Company d/b/a Eversource Energy ("Eversource" or the "Company"), appealing pursuant to Sections 4-183(a) and 16-35(a) of the Connecticut General Statutes from a final decision of the Connecticut Public Utilities Regulatory Authority ("Authority" or "PURA") dated April 28, 2021 and complains and says:

INTRODUCTION

1. On August 4, 2020, between the hours of 2 p.m. and 6 p.m., a major weather event – Tropical Storm Isaias – swept through the State of Connecticut. The onset of Storm Isaias was expected. Over 10 days prior to impact in Connecticut, the storm system progressed from south of Puerto Rico, north along the east coast of the U.S. Ultimately, the devastating impact of Storm Isaias in Connecticut caused 632,632 customer outages at peak on the Eversource system (50% of its customers) and 21,669 damage locations, which is more damage than any major weather event in the history of Connecticut except for the October 2011 Nor'easter. Storm Isaias occurred during

hot summer weather in the midst of the COVID-19 pandemic when customers were working from home, businesses were struggling, and public and private support systems were under duress.

2. As a "public service company" under General Statutes § 16-1, Eversource has an obligation to provide safe and reliable electric service to residents and businesses in 149 cities and towns representing almost 90% of the municipalities comprising the State of Connecticut. The State of Connecticut, as represented by its citizens and municipalities, rightly holds high expectations for the Company's performance in these types of events. Eversource recognizes and respects the public's expectations and strives for no greater goal than to fulfill those expectations safely. Eversource's storm performance failed to meet those expectations in certain essential respects, primarily relating to communications with customers and communities. Eversource is committed to improvement and is working daily to make consequential, lasting improvements.

3. Among other responsibilities, PURA is charged with overseeing public service companies with respect to "their adequacy and suitability to accomplish the duties imposed . . . by law and in respect to their relation to the safety of the public ...." Conn. Gen. Stat. § 16-11. The Authority conducts its regulatory proceedings under the authority granted to it in Title 16 of the General Statutes and pursuant to the Uniform Administrative Procedure Act, codified at General Statutes § 4-166 *et seq.* Like all adjudicatory and regulatory bodies, PURA is required to wield its authority fairly, dispassionately and lawfully. It is legally obligated to make reasoned decisions according to law; apply statutes and precedent without arbitrariness or capriciousness; and afford due process protections foundational to our constitutional system of government. Failure to fulfill these legal norms undermines the integrity of the process, risking unwarranted harm for regulated entities and threatening public confidence in effective decision making. PURA's Final Decision

did not meet these statutory and constitutional requirements in certain significant respects. Therefore, Eversource has invoked its right to appeal.[1]

4. This is a petition for administrative appeal by Eversource of PURA's Final Decision, dated April 28, 2021, in PURA Docket No. 20-08-03, *Investigation into Electric Companies' Preparation for and Response to Tropical Storm Isaias.*[2] A copy of the Final Decision is appended hereto as Exhibit A.

5. In the present appeal, Eversource requests that this Court provide necessary judicial review to ensure that the PURA Final Decision adheres to applicable statutory mandates governing storm event penalties, fundamental tenets of due process and Connecticut administrative law, and the minimum protections of the United States Constitution against excessive fines.

6. The Final Decision addresses numerous issues of first impression and hinges upon interpretations of statutes that are not time-tested; were not previously subject to judicial review; and are unreasonable. Specifically, this proceeding is the first time that the Authority has exercised its authority under General Statutes §§ 16-32h, 16-32i and 16-41 to assess the Company's

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[1] In its Final Decision, PURA has taken the unprecedented step of attempting to chill Eversource's exercise of its constitutional right to appeal and petition for redress, stating, "It is the inherent legal right of both companies to challenge our findings through the appellate process, and presumably one or both will, given the financial consequences at stake. However, we would much rather they challenge themselves to rectify the deficiencies found in this investigation," rather than "doubling down in continued defense of its abject failures." (Final Decision at 1.) Notwithstanding the Final Decision's numerous references to "continued" or "abject" failures, PURA found Eversource to have performed well in Storm Sandy in 2012, and in every storm since then, except for Storm Isaias. Out of the four largest storms in Connecticut's history, Storm Isaias was the second most damaging event. Yet, Eversource restored power in Storm Isaias in less time than any prior event and two days shorter than expected by the Company's Emergency Response Plan.

[2] Article First, §§ 10 & 14 of the Connecticut Constitution provide that the courts shall be open and that every person aggrieved under the law shall have remedy in the courts by due process of law, and that citizens of Connecticut have a right to petition those invested with the powers of government for redress of grievances. Likewise, the First Amendment to the United States Constitution, incorporated against the States through the Due Process Clause of the Fourteenth Amendment, protects Eversource's fundamental right to petition government for redress. Eversource has not appealed a decision of the Authority since 2009 in *Connecticut Light & Power Co. v. Connecticut Dep't of Pub. Util. Control*, Docket No. CV-09-4019951-S, 2010 WL 797137 (Conn. Super. Ct. Feb. 5, 2010, Satter, J.).

performance during a major storm event. Accordingly, PURA's interpretation and application of those statutes is not entitled to deference and should be reviewed *de novo*.

7. As acknowledged by the Authority, the Final Decision imposes substantial financial consequences on the Company arising out its preparation for and response to Tropical Storm Isaias. Most notably, the Final Decision imposes upon Eversource an indefinite penalty in the form of a reduction in the Company's authorized return on equity ("ROE") of 90 basis points. (Final Decision at 2). PURA states that the ROE reduction is made "as a consequence of [PURA's] findings" that Eversource "failed to comply with certain applicable performance standards and failed to manage its preparation for and response to Tropical Storm Isaias prudently and efficiently."[3] (*Id.*)

8. This indefinite financial penalty of approximately $31 million per year appeared without warning and for the first time in PURA's Final Decision.

9. PURA's procedural notices initiating the Tropical Storm Isaias investigation docket indicated that the Authority would "consider the appropriateness of" ROE penalties as a consequence of findings arising from the performance review. However, PURA's procedural notices also indicated that consideration of penalties, including potential ROE penalties, would follow in a subsequent, separate phase of the proceeding. At no time during the investigation, did PURA request discovery, evidence or briefing from any party on either: (1) the question of whether such penalties were warranted or legally authorized; and, if so, (2) what quantum of ROE penalty if any might bear a reasoned relationship to any findings of failures to manage the preparation for

[3] This is in marked contrast to the industry's reaction. The Edison Electric Institute (EEI) named Eversource a recipient of its Emergency Response Award for outstanding power restoration efforts following Tropical Storm Isaias. Eversource was also an honoree for restoration excellence following the Cape Cod tornadoes of 2019 and Connecticut tornadoes of 2018, as well as for response to a series of nor'easters in March of 2018.

and response to the storm.[4] Until the release of its Final Decision, the Authority's conduct regarding potential sanctions was consistent with its notices that it would consider financial penalties, including a potential ROE reduction, in a subsequent contested proceeding. In fact, in its *Proposed* Final Decision issued on March 19, 2021, PURA confirmed that it would "consider and levy any appropriate fines and other penalties in [related] Docket No. 20-08-03RE01, PURA Consideration of Civil Penalty and Enforcement Action Against the Electric Distribution Companies After Storm Isaias Investigation,[5] including, but not limited to: return on equity (ROE) penalties..." (Proposed Final Decision at 1.) Thus, as of March 19, 2021, PURA stated it would "consider and assess civil and other financial penalties for any finding of noncompliance with performance standards, Authority orders, or the general prudence standard, *in a subsequent contested proceeding*" including "return on equity penalties." (*Id.* at 9, n.9) (emphasis added.)

10. Between the March 19, 2021 Proposed Final Decision and the April 28, 2021 Final Decision – despite the record having closed – the Authority reversed course entirely, abandoning its commitment to take evidence, provide due process and "consider" whether and what level of ROE penalties were appropriate in a separate proceeding. Instead, PURA capriciously issued a final decision imposing a ROE penalty of $31 million annually, applicable indefinitely.[6]

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[4] Since PURA's announcement of the indefinite $31 million per year ROE penalty, the market capitalization of the Company has declined precipitously due to investor reaction. Evidence and briefing submitted by the Company – had it been afforded the opportunity to provide it – would have addressed without limitation (1) the harm of a severe and open-ended ROE penalty on the Company's ability to attract investment for its operations; and (2) the resulting negative impacts to customers from increased costs of financing investment in the Connecticut distribution system.

[5] PURA opened this second docket on August 14, 2020 as an administrative placeholder for a contested proceeding to "consider civil penalties and enforcement actions, as applicable, based on findings in Docket No. 20-08-03...." (Docket Initiation Form 20-08-03RE01)

[6] In fact, there are many significant differences between the Proposed Final Decision and the Final Decision, but none more notable than the arbitrary imposition of the ROE penalty, along with the tone and content of the "Introduction" of the Final Decision, which belies a judicial temperament exhibiting "compassion, decisiveness, open-mindedness, sensitivity, courtesy, patience, freedom from bias and commitment to equal justice," as the term is commonly defined. (Final Decision at 1).

11. Following the issuance of PURA's Proposed Final Decision, and prior to the issuance of the Final Decision, Eversource submitted detailed Exceptions identifying numerous legal and procedural errors in the Proposed Final Decision. Chief among the Exceptions taken by Eversource were: (1) the Authority's determination that it would impose penalties of types and amounts beyond the limitations contained in Connecticut General Statutes § 16-32i;[7] and (2) the Authority's proposed issuance of *final* findings that Eversource had violated performance standards without first affording Eversource the due process required by § 16-41.

12. As described in this Appeal, PURA erred in its Final Decision in that it has determined that forms and amounts of penalties not authorized by, and in excess of, the limits of § 16-32i, including the ROE penalty, are entered and/or will be entered against Eversource, and in that PURA has made final findings against Eversource without affording it due process.

13. With respect to the amount of the penalty available under § 16-32i, the Authority originally stated in the Proposed Final Decision that the civil penalty imposed upon the Company "may not exceed a total of four % of [its] annual distribution revenue." (Proposed Final Decision at 9.) Such a penalty would have exceeded $45.4 million.

14. Because the version of § 16-32i in effect at the time of Tropical Storm Isaias provided for a maximum fine of 2.5% of annual distribution revenue,[8] the Company took exception

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[7] The operative version of section 16-32i at the time of Tropical Storm Isaias provided, in pertinent part:

> The Public Utilities Regulatory Authority shall review the performance of each electric distribution company and gas company, as those terms are defined in section 16-1, after any emergency, as defined in section 16-32e, (1) in which more than ten per cent of any such company's customers were without service for more than forty-eight consecutive hours, or (2) at the authority's discretion. The authority, upon a finding that any such company failed to comply with any standard of acceptable performance in emergency preparation or restoration of service in an emergency, adopted pursuant to section 16-32h, or with any order of the authority, shall make orders, after a hearing that is conducted as a contested case in accordance with chapter 54,[1] to enforce such standards or orders and may levy civil penalties against such company, pursuant to section 16-41, not to exceed a total of two and one-half per cent of such electric distribution or gas company's annual distribution revenue, for noncompliance in any such emergency.

[8] The statute was amended effective October 2, 2020, providing for a maximum penalty of 4%.

to the Authority's determination that it would be subject to a penalty of up to 4%. The Authority acquiesced to this exception on May 6, 2021, when the Authority issued a Notice of Violation in a reopening of the underlying proceeding designated by PURA as Docket No. 20-08-03RE01, wherein it imposed a proposed penalty under § 16-32i of $28,405,022, or 2.5% of the Company's annual distribution revenue.

15. PURA's acquiescence to the applicable statutory cap in the Final Decision reduced the proclaimed penalty by $17 million (from $45.4 million to $28.4 million). However, in the Final Decision PURA substituted two new penalties not previously contemplated in the Proposed Final Decision: (1) the indefinite ROE penalty of $31 million per year, and (2) a penalty for the Company's purported failure to report 36 minor accidents required under § 16-16 carrying a maximum fine of "not more than five hundred dollars for each offense", for which PURA has now imposed a proposed fine of $1,620,000 in the Notice of Violation issued in Docket No. 20-08-03RE01.

16. PURA's decision to raise the ROE penalty for the first time in the Final Decision and impose it with finality, rather than considering it in a subsequent contested proceeding with appropriate due process protections, is a clear violation of Eversource's rights and an unlawful circumvention of the maximum penalty applicable to storm performance in § 16-32i. The express provisions of § 16-32i limit PURA's authority to levy civil penalties to an amount "not to exceed a total of two and one-half per cent of such electric distribution . . . annual distribution revenue," for non-compliance with "any standard of acceptable performance in emergency preparation or restoration of service in an emergency, adopted pursuant to section 16-32h, *or with any order of the authority*." Conn. Gen. Stat. § 16-32i (emphasis added). Thus, the ROE penalty is void as a matter of law.

17. Eversource objected to the Proposed Final Decision's inclusion of final findings that the company had violated performance standards warranting penalties under §§ 16-32i and 16-41. Section 16-41 requires PURA to provide Eversource with specific notice of alleged violations and an opportunity to be heard and present rebuttal evidence *prior* to making findings of any violations or issuing penalties.[9] Contrary to the clear statutory mandate, the Proposed Final Decision failed to mention the issuance of a Notice of Violation or otherwise recognize that Eversource would have an opportunity to contest the factual basis for the penalty or the appropriateness, form or amount of any potential penalty.

18. The Final Decision attempts to recharacterize the finality of PURA's purported findings on storm performance in an apparent, but untenable, effort to comply with the requirements of § 16-41, despite simultaneously making a final determination that Eversource's storm performance warranted an indefinite ROE penalty. Specifically, PURA stated in its Final Decision that it would issue a Notice of Violation ("NOV") in accordance with § 16-41, and that Eversource would have the opportunity in a separate proceeding in Docket No. 20-08-03RE01 "for a hearing in a contested proceeding to address the NOV." (Final Decision at 12.) The Authority further stated that, in the reopened proceeding, it "may, for cause shown, rescind,

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[9] Section 16-41(c) provides:

If the authority has reason to believe that a violation has occurred for which a civil penalty is authorized by subsection (a) or (b) of this section, it shall notify the alleged violator by certified mail, return receipt requested, or by personal service. The notice shall include:

(1) A reference to the sections of the title, regulation or order involved;

(2) A short and plain statement of the matter asserted or charged;

(3) A statement of the prescribed civil penalty for the violation; and

(4) A statement of the person's right to a hearing.

reverse, or alter a finding of non-compliance with a performance standard made in this Decision." (*Id.* at 12).[10]

19. Although PURA ostensibly reformed its Final Decision to provide Eversource its statutory opportunity under § 16-41 to challenge purported factual findings in a subsequent proceeding (in response to Eversource's objection), PURA has relied on those very same findings to penalize Eversource with an indefinite ROE penalty in the current proceeding. Thus, even if PURA were to reconsider its proposed findings in the subsequent NOV proceeding in Docket No. 20-08-03RE01, Eversource is foreclosed from rebutting those same findings for purposes of the ROE penalty decided in the Final Decision in the current proceeding, while in addition, the ROE penalty circumvents the maximum limitation on the penalty amount in § 16-32i.

20. Similarly, although PURA states that it has not considered in the Final Decision "the allowance or disallowance of expenses related to Tropical Storm Isaias" for the purpose of future ratemaking (Final Decision at 126), PURA contrarily states that it has made specific findings that Eversource was not prudent in "executing [various storm preparation and response activities]" and that "[c]onsequently, any costs or additional costs arising from or related to such imprudent actions *will be subject to disallowance* in any future cost recovery proceeding." (*Id.*) (emphasis added.)

21. Throughout this proceeding, the Company protested PURA's cost prudence review, on the basis that it was prejudicial to the Company's substantive and procedural due process rights to conduct such a review outside of a ratemaking proceeding in which the Company has had an opportunity to prepare and submit a request for cost recovery to satisfy the burden of proof for

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[10] Eversource reserves its rights to appeal any aspects of the Decision in this case that are not final and will be later adjudicated in separate proceedings, including without limitation, Docket No. 20-08-03RE01.

"cost prudence." In rejecting the Company's protests, PURA stated, the "current phase" of the investigation is *not* a cost recovery proceeding and, therefore, the Company's "claims of violations of [its] substantive and due process rights are premature and misplaced." (Authority Ruling on Motions No. 38 and 39, November 6, 2020, at 2, fn.2.) Yet, as expected, the Authority states in the Final Decision that its findings of imprudence in this proceeding will defeat cost recovery in the future "cost prudence" proceeding. (Final Decision at 126.)

22. By rendering findings that are final for some purposes (*i.e.,* ROE penalties and storm cost disallowances), but not final for other purposes such as in the subsequent contested proceeding conducted in Docket No. 20-08-03RE01 to determine additional monetary penalties under General Statutes § 16-32i, PURA has committed legal error and deprived Eversource of substantive and procedural due process.

23. The Authority's final adjudication of storm performance facts to support the ROE penalty decided in the Final Decision, when those same facts are key to the adjudication of alleged violations and associated penalties in the subsequent § 16-32i proceeding in Docket No. 20-08-03RE01, improperly creates the potential that the subsequent § 16-32i proceeding will have a predetermined outcome. At best, this illogical scenario creates a strong likelihood of producing inconsistent and irreconcilable factual findings and unlawful penalties between the Final Decision in Docket No. 20-08-03 and the future final decision in Docket No. 20-08-03RE01.

24. Thus, PURA's decision to impose an ROE penalty constitutes legal error because it establishes: (1) a civil penalty in excess of the statutory limit in § 16-32i of 2.5% of the Company's annual distribution revenue; (2) a civil penalty in a form other than a credit to

customers, exceeding PURA's statutory authority;[11] and (3) a civil penalty that is grossly excessive in violation of the Eighth Amendment to the United States Constitution. In form and amount, the decision to impose the prescribed penalty is arbitrary and capricious, an abuse of discretion, and a clearly unwarranted exercise of discretion made upon unlawful procedure.

25. Apart from all other decisional flaws in the Final Decision, the ROE penalty imposed by the Final Decision constitutes egregious error that should be reversed on numerous, independently sufficient legal grounds.

26. Imposition of the ROE penalty also improperly conflates management imprudence with a failure by management to meet the Emergency Response Plan (ERP) performance standards governed by General Statutes §§ 16-32h and 16-32i. A finding of imprudence requires a distinct analysis and higher showing than a violation of ERP standards. By simply relabeling its findings of failures to meet ERP standards as "imprudent," PURA does not articulate a legally valid basis for imposition of the ROE penalty in the Final Decision.

27. Even if PURA's imprudence findings properly pertain to storm preparation and emergency response activities fully encompassed in the ERP and the applicable standards of acceptable performance, PURA erred in departing from and misapplying well-established

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[11] Section 16-32i states, in pertinent part:

> The authority ... may levy civil penalties against such company, pursuant to section 16-41, not to exceed a total of two and a half per cent of such electric distribution or gas company's annual distribution revenue, for noncompliance in any such emergency. In determining the amount of any penalty, the authority shall consider whether such company received approval and reasonable funding allowances, as determined by the authority, from the authority to meet infrastructure resiliency efforts to improve such company's performance. ***Any such penalty shall be assessed in the form of credits to the accounts of ratepayers of such electric distribution or gas company.*** Any such penalty shall not be included as an operating expense of such company for purposes of ratemaking.

(Emphasis added).

standards of prudence review. Specifically, PURA failed to examine management decisions from the vantage point of the Company at the time of the events and decisions in question, determining whether it acted in good faith and reasonably based on what it knew or should have known at the time its decisions were made. Instead, in violation of controlling precedent, the Authority deemed the Company "imprudent" based on pervasive hindsight judgment, dispensing with the complexity of actual utility operations pushing through multi-dimensional challenges associated with a major outage event.

28. Furthermore, even if the concept of "imprudence" could provide a basis for the imposition of an ROE penalty for ERP performance within the context of § 16-32i – which it cannot – PURA may order such a penalty only within the context of a ratemaking proceeding conducted pursuant to General Statutes § 16-19, *et seq.* and upon affording the Company the due process protections to which it is entitled in such proceedings.

29. PURA has also premised its Final Decision upon pivotal errors of fact that are clearly erroneous and not supported by substantial evidence. Specifically, PURA's hindsight judgments that: (1) the Company's knowledge of oncoming "tropical storm conditions" and "tropical storm force winds" necessitated a higher, Level 3 event classification (up to 650,000 customer outages) rather than Level 4 classification (up to 380,000 customer outages); and (2) had the Company correctly classified the event as a Level 3, in advance of the storm, it could have obtained hundreds of additional out-of-state mutual aid crews *prior* to the storm's arrival in Connecticut on August 4, 2020 to work on the system in the first 48 hours, are contrived and

baseless.[12] None of the factual predicates to these findings are accurate let alone supported by substantial evidence.

30. The ROE penalty imposed by the Final Decision constitutes egregious error that, in and of itself, must be reversed based upon numerous independently sufficient legal grounds.

31. In addition, PURA has committed legal error by prospectively and irreversibly subjecting Eversource to storm cost disallowances: (1) based on a faulty prudence analysis applied prematurely in this proceeding; and (2) untethered to the consideration of the actual storm costs and whether there is a close causal connection between the "imprudent" conduct and the costs incurred.

32. Lastly, PURA has committed legal error in concluding that the Company failed to make reports of specified damage to customer property occurring during the storm, and in concluding that the Company violated the merger agreement between Northeast Utilities and NSTAR (which are the predecessor companies that formed Eversource), in relation to regional crew deployment.

33. PURA's erratic actions, as described above and in further detail below, were arbitrary, capricious, procedurally unlawful, in excess of statutory authority, deprived Eversource of due process rights and statutory rights and were otherwise unlawful.

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[12] PURA's public statements made within hours of the storm event and prior to any investigation indicated its conclusion that Eversource had "badly underestimated the threat of Tropical Storm Isaias by preparing for between 125,000 and 380,000 outages, while more than 800,000 of its customers lost power at the peak and nearly 600,000 still were in the dark Wednesday night." Peak customer outages were 632,632, not 800,000. *See, e.g.*, https://ctmirror.org/2020/08/05/lamont-says-it-will-take-days-to-recover-power/ (August 5, 2020) (stating before the investigation was even open that "[d]ocuments provided by PURA" to the press indicated that Eversource prepared for a "milder" event.)

34. For all of these reasons, the present appeal is necessary to ensure the fair and just administration of the law in a way that ensures due process and is faithful to the statutory mandates concerning storm event penalties.

PARTIES AND JURISDICTION

35. Plaintiff-Appellant, Eversource, is a specially chartered electric distribution company ("EDC") with an office located at 107 Selden Street, Berlin, Connecticut, 06037.

36. Defendant-Appellee, PURA, is an agency of the State of Connecticut, charged with the regulation of public service companies like Eversource pursuant to Title 16 of the General Statutes, and is part of the Connecticut Department of Energy and Environmental Protection ("DEEP"), with an office located at Ten Franklin Square, New Britain, Connecticut, 06051. As an agency within the meaning of General Statutes § 4-166(1), PURA is subject to the provisions of Title 4, Chapter 54 of the Connecticut General Statutes, entitled "Uniform Administrative Procedure Act" ("UAPA").

37. In addition to Eversource, the Authority recognized the following entities as parties to the proceeding in Docket No. 20-08-03: Office of Consumer Counsel; Commissioner of the Department of Energy and Environmental Protection; Connecticut Office of the Attorney General; and the United Illuminating Company. Pursuant to General Statutes § 4-183, each of these parties is being served with a copy of the instant appeal.

38. This Court possesses subject matter jurisdiction over this action pursuant to General Statutes §§ 4-183(a) and 16-35(a).

FACTUAL AND PROCEDURAL BACKGROUND

Development of the Comprehensive Storm Preparation and Response Standards

39. In 2012, in the wake of the 2011 storms affecting Connecticut, the legislature enacted an Act Enhancing Emergency Preparedness and Response, Public Act 12-148.

40. The Act, implemented as Connecticut General Statutes § 16-32h, *et seq.*, required PURA to initiate a docket to "establish industry specific *standards for acceptable performance* by each utility in an emergency to protect public health and safety, to ensure the reliability of such utility's services to prevent and minimize the number of service outages or disruptions and to reduce the duration of such outages and disruptions, to facilitate restoration of such services after such outages or disruptions, and to identify the most cost-effective level of tree trimming and system hardening, including undergrounding, necessary to achieve the maximum reliability of the system and to minimize service outages." Conn. Gen. Stat. § 16-32h(b) (emphasis added).

41. General Statutes § 16-32h(d) identifies a comprehensive set of operational functions covering every aspect of storm preparation and response to be addressed by standards of acceptable performance, including but not limited to provisions for: (1) minimum staffing and equipment levels for each utility; (2) targets for recovery and restoration of service in emergencies for service outages affecting more than 10%, 30%, 50% and 70% of such utility's customers; (3) communication plans with customers; (4) safety standards for employees and contractors of each utility; (5) mutual aid agreements for line crew assistance; (6) communication and coordination protocols with appropriate state, municipal and emergency officials; (7) tree trimming, cutting and removal; (8) communication and coordination, in consultation with the Department of Emergency Services and Public Protection, between utilities and the public; (9) timely notification to relevant

state or municipal agency officials; [(10) intentionally omitted]; and (11) operation of the call center. Conn. Gen. Stat. §§ 16-32h(c) and (d).

42. In addition, General Statutes § 16-32h(e) vested PURA with a broad mandate and authority to include in the EDC standards:

> ... any other standards for acceptable performance by any utility to ensure the reliability of such utility's services in any emergency, to prevent and minimize any service outages or disruptions lasting more than forty-eight consecutive hours and affecting more than ten per cent of any utility's customers and to facilitate restoration of such services after such outages or disruptions.

43. As enacted in 2012, General Statutes § 16-32i vested PURA with the authority to levy substantial civil penalties up to a maximum of 2.5% of annual distribution revenues for a failure to comply with any standard of acceptable performance in emergency preparation or restoration of service in an emergency, adopted pursuant to § 16-32h, or with any order of the authority. By action of Public Act 20-05, effective as of October 2, 2020, the maximum penalty was raised prospectively to 4% of annual distribution revenues.

44. Prior to the enactment of these statutory provisions, the Authority did not have a statutorily mandated methodology or process to investigate and consider penalizing EDC performance during and in preparation for storm events. Instead, the Authority conducted investigations of major storm events under its general oversight authority in an uncontested proceeding. Where the investigation yielded findings of deficient performance that PURA found warranted a penalty, PURA established a "rebuttable presumption" that an ROE reduction would be instituted in a future contested rate proceeding conducted under General Statutes §§ 16-11, 16-19, and 16-19e. *See, e.g.*, Final Decision, PURA Docket No. 11-09-09, *PURA Investigation of Public Service Companies' Response to 2011 Storms* (Aug. 1, 2012).

45. In addition, the Authority applied a "prudency" evaluation – not to storm performance – but rather, exclusively to the issue of storm cost recovery in a separate contested proceeding. In that proceeding, costs were subject to disallowance based on a well-settled, three-part test (identification of a standard of care; departure from the standard of care; and, the existence of a reasonably close causal connection between the departure from the standard and the cost to be disallowed).

46. Pursuant to the 2012 statutory mandates, PURA established new and comprehensive standards of acceptable performance in emergency preparation and restoration of service in an emergency, defined as a circumstance in which more than ten per cent of any utility's customers are without service for more than forty-eight consecutive hours. Conn. Gen. Stat. § 16-32i.

47. PURA explained in the Final Decision that it required the EDCs to incorporate the standards of acceptable performance promulgated under General Statutes § 16-32h into their respective ERPs filed biennially with the Authority pursuant to General Statutes § 16-32e(b), in its 2012 "Performance Standards Decision."[13] (Final Decision at 18.) PURA further noted that it had required that the EDCs *follow their ERPs* in response and recovery activities related to emergencies in the Performance Standards Decision. (*Id.*) Thus, according to PURA, the Performance Standards Decision establishes the Company's ERP as the EDCs' "primary set of acceptable performance standards." (*Id.*)

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[13] *Citing* Final Decision, November 1, 2012, PURA Docket No. 12-06-09, *PURA Establishment of Performance Standards for Electric and Gas Companies*, at Appendix A, pp. 2 & 8.

48. The standards of acceptable performance authorized by PURA for inclusion in the ERP encompass "Event Level Classifications," which establish the anticipated mutual aid resources needed to restore customers within a prescribed time range. (Final Decision at 28.)

49. Through implementation of the statutory mandates governing the development of the ERP, PURA delineated the comprehensive and exclusive standards by which the Company's preparedness for and response to storm events meet the criteria of §§ 16-32h and 16-32i. Thus, for a catastrophic storm event occurring in 2020, the statutory process for evaluation of performance in accordance with the ERP standards is pursuant to §§ 16-32h, 16-32i and 16-41.

Tropical Storm Isaias

50. On Friday, July 31, 2020, Tropical Storm Isaias was located approximately 295 miles southeast of Nassau in the Bahamas, tracking northward along the eastern seaboard of the U.S. Forecasts associated with the storm track, wind speeds, wind direction and intensity remained unsettled through the weekend, indicating an easterly path along the coast of Massachusetts. Through Sunday, August 2, the storm was on a track to the easterly side of the Company's Connecticut system, placing all but the extreme east side of Connecticut outside the boundaries of exceptionally strong winds from the south southeast and south southwest.

51. On Monday, August 3 – the day before the event – the forecasts indicated a shift to the west of Connecticut, which occurred overnight Monday night into Tuesday, subjecting a broader swath of the Company's Connecticut service territory to unusual wind direction. In addition, the actual storm impact was exacerbated by an "extratropical transition" or disintegration of the storm – not indicated by the weather forecasts – as it passed through Connecticut, the effect of which was anomalously high and intense pockets of wind gusts.

52. Between the hours of 2 p.m. and 6 p.m. on Tuesday, August 4, Storm Isaias hit Connecticut and the Company's system. Several tornado warnings were issued across Connecticut as storm cells showed rotation at the cloud level through the afternoon of August 4.

53. On Wednesday, August 5, 2020, only 18 hours after the storm, PURA's Chairman participated in a press conference held outside Eversource's Berlin headquarters, stating that the Authority planned to open an investigation into the EDCs' preparation for and response to Storm Isaias.

54. On August 7, 2020, while comprehensive restoration activities were still underway, the Authority formally initiated an investigation under General Statutes § 16-32i as an uncontested case to determine whether each EDC complied with applicable standards and orders in connection with each EDC's preparation and response to Storm Isaias. (*See* Aug. 7, 2020 Order on Motion No. 1 at 1-2). PURA asserted that, if it found there was non-noncompliance during its pending investigation in this uncontested case, then it would promptly convene a contested case to enforce applicable standards and determine whether to impose any penalties. (*Id.*)

55. Over the next several days, Eversource worked to restore 1,152,038 customer outages,[14] clear more than 8,900 fallen trees, and replace more than 2,500 damaged utility poles, 1,438 transformers and more than 500 miles of downed wire. Through its adherence to the ERP, the Company was able to restore power to 90% of affected customers within five days following the event and 99% of customers within 7 days of the event. These restoration times satisfied the applicable standard for restoring power to customers following a storm of this magnitude, as set

[14] A total of 632,632 customer outages occurred "at peak," meaning the most customers out at the same time was 632,632. However, the Company restored a total of 1,152,038 customer outages over the course of the restoration because work to repair the system sometimes requires the power to be cut-off and then restored again to enable repairs.

forth in the ERP (which authorizes up to 10 days for restoration of electric service for a "Level 3" storm event such as Storm Isaias). There is no finding in the Final Decision that Eversource failed to meet the applicable time period for restoration, despite reference to "abject failures." (Final Decision at 1).

56. By way of an August 11, 2020 Motion for Reconsideration of a prior ruling by PURA on the scope of the proceeding, the Attorney General requested that PURA: (1) clarify that the scope of the proceeding will include a "prudence review" of the EDC's preparedness for and response to Storm Isaias; and (2) designate the proceeding as a contested case under the UAPA. The Attorney General's proposal represented a marked departure from prior storm investigation dockets, which the Authority had conducted as uncontested cases to inform subsequent contested proceedings for consideration of ROE penalties, storm-cost disallowances and ratemaking.

57. On August 14, 2020, over the objection of the EDCs, PURA stated that it would revise its Notice of Proceeding to include a prudency review and would designate the proceeding as a contested case under the UAPA. Also on August 14, 2020, the Authority issued a Revised Notice of Proceeding, restating the scope included in the original Notice of Proceeding and adding that the proceeding would encompass determinations on the prudency and reasonableness of the EDCs' storm preparation, response, and recovery activities; and, the prudency of the EDCs' actions taken before, during, and after Storm Isaias including, whether the EDCs employed prudent management and operating procedures in incurring storm costs; and whether Eversource prudently avoided any operational costs that could have mitigated restoration.

58. With respect to storm costs, the Authority stated that it would review the accuracy of the storm-related costs for which recovery may be sought to ensure that the costs are quantifiable, fully supportable, properly assigned to storm-related activities, and meet any other

standard necessary to be considered as properly incurred storm costs from an accounting standpoint. The Authority further stated that it would determine that these costs for items and services are not included in the rates currently charged customers. In its August 14, 2020 notice, PURA did not indicate that it would make final and binding findings or orders on cost disallowance in this proceeding. And, in a later ruling issued on November 6, 2020, PURA assured the Company that with respect to its objections that this proceeding would be used to adjudicate storm cost disallowances that such "claims of violations of ... substantive and due process rights are premature and misplaced." (Ruling on Motions No. 38 and 39, Nov. 6, 2020, at 2, fn.2.)

59. Beginning in October of 2020 and continuing through January 2021, PURA noticed and conducted public comment and evidentiary hearings.

60. On March 19, 2021, PURA issued its Proposed Final Decision. The Proposed Final Decision stated, among other things, that "return on equity (ROE) penalties" would be considered and levied, as appropriate, in a later contested case. (Proposed Final Decision at 1.)

61. Eversource filed Written Exceptions to the Proposed Final Decision on April 12, 2021, in which it identified numerous errors of law and fact present in the Proposed Final Decision.

62. PURA heard Oral Argument on the Proposed Final Decision on April 19, 2021.

63. On April 28, 2021, the Authority released its Final Decision, which failed to substantially remedy many of the errors of law and fact identified by Eversource in its Written Exceptions and Oral Argument.

64. The Final Decision made numerous determinations and findings in support of its core conclusion that:

> The Connecticut Light and Power Company d/b/a Eversource Energy (Eversource) failed to comply with *certain applicable performance standards* and to manage its preparation for and response to Tropical Storm Isaias *prudently* and efficiently.

> Specifically, Eversource *did not satisfy the performance standards* for managing its municipal liaison program [that facilitates communications to and from municipalities], executing its Make Safe responsibilities [to remove downed electric lines from fully blocked roads], communicating critical information to its customers, or meeting its obligation to secure adequate resources in a timely manner to protect the public safety and to provide for the overall public interest.

(Final Decision at 2, emphasis added.)

65. The Final Decision concluded that "[a]s a consequence of these findings, the Authority will require Eversource... to modify, in any pending or future rate proceedings, [its] rates to reflect a downward adjustment of 90... basis points... in [its] allowed rate of return on equity (ROE). The purpose of this reduction in ROE is to align [Eversource's] management performance in future storm response efforts with [Eversource's] financial performance." (Final Decision at 2).

66. The Final Decision further provides that PURA "will conduct a reopened proceeding in Docket No. 20-08-03RE01, PURA Consideration of Civil Penalty and Enforcement Action Against the Electric Distribution Companies After Storm Isaias Investigation, to consider issuing civil penalties and further enforcement orders." (Final Decision at 3).

67. The Final Decision also provides that "in future rate proceedings, the Authority may disallow specific storm response and recovery costs or other expenditures sought by [Eversource] as a result of the determinations made during this investigation that [Eversource's] actions did not conform with the prudency standard." (*Id.*)

68. Further specific details of the Final Decision germane to the claims on appeal are described as necessary below.

STATUTORY BASIS FOR APPEAL

69. Connecticut's UAPA imposes limits on both the substantive and procedural actions of administrative agencies.

70. Under the UAPA, an administrative agency's decision is unlawful if it is (i) in violation of statutory or constitutional provisions; (ii) in excess of the administrative agency's statutory authority; (iii) made upon unlawful procedure; (iv) affected by errors of law; (v) clearly erroneous in light of the substantial evidence in the record; or (vi) arbitrary or capricious or characterized by abuse of discretion or clearly unwarranted exercise of discretion. Conn. Gen. Stat. § 4-183(j).

71. In support of its conclusions, the Final Decision relies on numerous substantial errors of law and fact.

72. Eversource now files this timely appeal of PURA's Final Decision pursuant to General Statutes §§ 4-183(a) and 16-35(a).

73. PURA's Final Decision is unlawful and this petition for administrative appeal must be sustained because the conclusions in the Final Decision are in excess of PURA's statutory authority, made upon unlawful procedure, affected by errors of law, in violation of statutory provisions, clearly erroneous in light of the substantial evidence in the record, and arbitrary or capricious and characterized by both an abuse of discretion and clearly unwarranted exercise of discretion.

AGGRIEVEMENT

74. Eversource is aggrieved by the Final Decision because it subjects Eversource to substantial and indefinite penalties and liabilities that are not authorized by statute.

75. Eversource is aggrieved by the Final Decision because it was made in violation of the UAPA and denied Eversource its statutory due process rights afforded thereunder. Specifically, Eversource is aggrieved by the Final Decision because it rests on findings and conclusions of violations that have been made without affording Eversource its due process provided by, *inter alia*, the UAPA and Connecticut General Statutes § 16-41.

76. Eversource is further aggrieved by the Final Decision because it subjects Eversource to numerous, substantial and indefinite civil penalties in the range of millions of dollars annually based upon numerous errors of law and fact and imposes fines that are so excessive as to be violative of federal constitutional protections against excessive fines.

77. Eversource is further aggrieved by the Final Decision's conclusion that it failed to comply with a material obligation in a binding merger and settlement agreement between Northeast Utilities and NSTAR that brought about the formation of Eversource.

78. Eversource is further aggrieved by the Final Decision because it includes conclusions of law, findings and orders that are in fact and effect final and binding determinations of Eversource's legal rights.

79. For these reasons, Eversource has a specific personal and legal interest at stake that the Final Decision has specifically and injuriously affected.

CLAIMS OF ERROR ON APPEAL

COUNT ONE

The ROE Penalty Violates and Exceeds PURA's Statutory Authority Under General Statutes §§ 16-32i and § 16-19 *et seq.* and is Affected by Errors of Law.

80. Eversource incorporates by reference Paragraphs 1 through 79 above as if fully set forth herein.

81. General Statutes § 16-32i, (eff. June 15, 2012), which was in effect at the time of Storm Isaias in August 2020, provided that "upon a finding that [Eversource] failed to comply with any standard of acceptable performance in emergency preparation or restoration of service in an emergency," PURA "may levy civil penalties against [the Company], pursuant to section 16-41, not to exceed a total of two and one-half per cent of [the Company's] annual distribution revenue, for noncompliance in any such emergency" which "shall be assessed in the form of a credit to ratepayers of [Eversource]" and that "[a]ny such penalty shall not be included as an operating expense of such company for purposes of ratemaking."

82. PURA's determination that it is authorized to penalize Eversource for failures of acceptable performance on the ERP standards, in the form of a reduction to authorized ROE, is a decision rendered in excess of its statutory authority in that § 16-32i prescribes the exclusive penalty available to PURA for any such failure and sets a maximum, which the ROE penalty exceeds. This is an error of law.

83. PURA's determination that it may penalize Eversource for performance governed by §§ 16-32h and 16-32i by imposition of an ROE penalty violates the statutory cap on monetary penalties in § 16-32i, and contravenes the specific mandate of § 16-32i specifically defining the relationship between the available monetary penalty for inadequate storm performance and the

company's rates ("any such penalty shall not be included as an operating expense of such company for purposes of ratemaking").

84. Even if PURA has authority to penalize the Company with an ROE reduction for performance encompassed within the ERP standards notwithstanding the governance of § 16-32i, which it does not, PURA may not do so outside the context of a separate, contested ratemaking case held pursuant to § 16-19, *et. seq.* These statutes forbid PURA from ordering ROE reductions in isolation without consideration of the numerous other factors that bear on an overall acceptable rate structure that balances the interests of customers and the need of the Company to attract investment for its operations.

85. These ratemaking statutes also provide the Company with due process protections that have been circumvented by PURA in mandating the ROE penalty outside the ratemaking process. Even before the enactment of § 16-32i, PURA recognized that ROE penalties could only be imposed in ratemaking proceedings.[15] On this score, PURA's Final Decision in Docket No. 11-09-09, *PURA Investigation of Public Service Companies' Response to 2011 Storms* (at 18) is directly on point:

> In light of the overall substantial weight of evidence developed in this record regarding the performance of CL&P during the 2011 Storms, the PURA will establish a rebuttable presumption that CL&P should be imposed an appropriate basis point reduction to its allowed return on equity (ROE) in its next ratemaking proceeding as a penalty for such poor management performance and to provide incentives for improvement. The factual support for this legal presumption as to an ROE penalty is rebuttable: the burden of proof as to management execution and manner of operation as to these deficiencies identified in this proceeding will rest with CL&P. CL&P will have the opportunity to rebut the presumption, supported

[15] Notably, PURA acknowledged in the underlying docket that an ROE penalty could be decided only in a future ratemaking proceeding, but then reversed course in its Final Decision. PURA's August 7, 2020 ruling on Motion No. 1 in the underlying docket stated that, "The disallowance of storm recovery costs and the imposition of ROE penalties certainly remain within the Authority's power; ***the statutorily prescribed venue for these sanctions is a ratemaking proceeding***." (Emphasis added).

by the record in this case, as well as the amount of the adjustment to its ROE at its next ratemaking proceeding.

86. In stark contrast, PURA's penal reduction to authorized ROE in this case is expressly a final order, and any future process simply will determine when, but not if, it is imposed. PURA's decision to impose this indefinite ROE penalty in the Final Decision was not conditional or rebuttable in a future proceeding. Instead, the Final Decision clearly stated that "[t]he ROE approved for the EDCs in the next applicable ratemaking proceeding in which a final decision is issued . . . *will accordingly be reduced.*" (Final Decision at 127) (emphasis added.)[16]

87. The ROE penalty therefore violates and exceeds PURA's statutory authority and is affected by errors of law.

COUNT TWO

PURA Ordered the ROE Penalty Against the Company Without Due Process

88. Eversource incorporates by reference Paragraphs 1 through 87 above as if fully set forth herein.

89. Even assuming *arguendo* that PURA had authority to penalize Eversource with a ROE penalty for its storm response performance outside the bounds of § 16-32i, PURA deprived Eversource of due process by failing to provide adequate notice that it would consider imposing such a penalty upon Company in the Final Decision.

90. At the outset of the proceeding, PURA provided notice that it would "consider the appropriateness of ROE penalties" and examine any proposed adjustments to the Company's ROE in a future contested case.

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[16] On May 5, 2021, PURA issued a Revised Notice in currently pending Docket No. 17-12-03RE11, PURA Investigation Into Distribution Planning of the Electric Distribution Companies – New Rate Designs and Review, stating "The Authority's investigation into an interim rate decrease will also be used to implement the return on equity reductions authorized in the Final Decision dated April 28, 2021 in Docket No. 20-08-03, Investigation Into Electric Distribution Companies' Preparation for and Response to Tropical Storm Isaias."

91. Consistent with its notices, at no time during the proceedings did PURA conduct discovery, or request evidence or briefing from any party or intervenor regarding the issuance or amount of a potential ROE penalty.

92. On March 19, 2021, PURA issued its Proposed Final Decision in which it stated, "[t]he Authority will consider and levy and appropriate fines and other penalties in [a separate case in] Docket No. 20-08-03RE01, PURA Consideration of Civil Penalty and Enforcement Action Against the Electric Distribution Companies After Storm Isaias Investigation including, but not limited to: return on equity ('ROE') penalties, the appropriateness of EDC storm cost recovery disallowances, civil penalties in accordance with the General Statutes of Connecticut (Conn. Gen. Stat.) §§ 16-32i and 16-41 and further enforcement orders."

93. Thus, throughout this seven-month proceeding, PURA provided consistent notice to the Company that, while ROE penalties would be "considered" in Docket No. 20-08-03, the actual imposition of any ROE penalty would be taken up as a contested case in a separate proceeding where the Company would appropriately enjoy its full complement of statutory due process rights to contest the appropriateness and amount of any such penalty. Consistent with these notices, PURA did not conduct discovery, or request evidence or briefing from any party or intervenor regarding the issuance or amount of a potential ROE penalty.

94. On April 28, 2021 however, PURA's Final Decision included a surprise announcement of an "indefinite" ROE penalty of $31 million per year, which – while clearly punitive in intent and effect – was described as an "incentive."

95. PURA's mischaracterization of the punitive ROE reduction as an "incentive" is not only inaccurate, but also reflects an unlawful attempt to avoid the statutory cap in § 16-32i on civil penalties that may be assessed as a result of the Company's storm response. An incentive is

intended to reward future performance when specific standards or criteria are satisfied in the future; not to address a shortcoming in past performance that cannot be changed. The Final Decision states unequivocally that the ROE reduction has been imposed "as a consequence of [PURA's] findings" that Eversource "failed to comply with certain applicable performance standards and failed to manage its preparation for and response to Tropical Storm Isaias prudently and efficiently." (Final Decision p. 2.) Moreover, regardless of how it is characterized, PURA failed to provide adequate notice that an ROE reduction was to be ordered, let alone that an unprecedented ROE-based "incentive" was under consideration.

96. Lastly, the *indefinite* and *standardless* duration of the ROE penalty is in and of itself violative of due process. Although PURA implies that this penalty may be lifted at a future date once the "incentive" it creates has succeeded, it provides no articulation, guidance or standards as to whether and under what conditions the ROE penalty will be lifted. The failure to provide any notice of when or how Eversource may be relieved of the ROE penalty further violates the Company's due process rights.

97. In levying the ROE penalty upon the Company in this manner, PURA deprived the Company of due process.

COUNT THREE

The ROE Penalty Is Arbitrary, Capricious and Represents and Abuse of Discretion or a Clearly Unwarranted Exercise of Discretion, and/or is Clearly Erroneous Having No Basis in Evidence, Substantial or Otherwise.

98. Eversource incorporates by reference Paragraphs 1 through 97 above as if fully set forth herein.

99. In noticing and conducting the proceeding in the foregoing manner, and in erratically and without proper justification penalizing the Company with an indefinite ROE reduction approximating $31 million per year, PURA acted arbitrarily and capriciously.

100. The ROE penalty is arbitrary and capricious and represents an abuse of discretion because the record before PURA afforded no basis for determining the financial effect and the proportionality of the ROE penalty to the Company's conduct. PURA has offered no explanation for its derivation of the 90-point basis point penalty, which translates into an indefinite financial penalty of $31 million per year for the Company. The only point of reference offered by the Authority in the Final Decision is its reference to the "financial *penalty* on Eversource's ROE" of 15 basis points levied in its 2014 Rate Case Decision, which followed a fully litigated ratemaking proceeding where all participating parties were allowed adequate and appropriate due process as to the imposition and quantification of the ROE penalty. (Final Decision at 22.)

101. Moreover, the *indefinite* and *standardless* duration of the ROE penalty is arbitrary and capricious. Although PURA implies that this penalty may be lifted at a future date once the "incentive" it creates has succeeded, it provides no articulation, guidance or standards as to whether and under what conditions the ROE penalty will be lifted.

102. Lastly, the factual findings underpinning the ROE penalty that Eversource: (1) misclassified the ultimate impact of the storm as it approached the northeast; and (2) could have procured mutual aid crews *in advance* of the storm to work on the system through the first 48 hours following the storm, are clearly erroneous and not supported by substantial evidence.

COUNT FOUR

The ROE Penalty Is Improperly Predicated on Final Factual Determinations That Are the Key Adjudicative Facts the Company Has a Right to Contest in the Upcoming Penalty Docket.

103. Eversource incorporates herein by reference Paragraphs 1 through 102 above as if fully set forth herein.

104. Although PURA ostensibly reformed its Final Decision to allow Eversource the opportunity to rebut PURA's purported factual findings in a subsequent proceeding in Docket No. 20-08-03RE01 to avoid or mitigate the separate monetary penalty of $28.4 million that PURA proposed on May 6, 2021 in Docket No. 20-08-03RE01 pursuant to § 16-32i (Final Decision at 12), PURA acts inconsistently by resting its decision to penalize Eversource with a $31 million per year indefinite reduction to its ROE on those very same findings. However, for purposes of the ROE penalty, PURA casts those same findings as binding and non-rebuttable. (*Id.* at 127-128). Specifically, PURA states that "[a] finding that an EDC failed to comply with a performance standard may provide a basis for an ROE reduction." (*Id.* at 16.) Additionally, the Final Decision states that "the Authority finds that the record evidence in this proceeding supports a determination that the respective storm performances of Eversource ... [was] inadequate and deficient and, therefore, warrant[s] a ratemaking ROE reduction to properly align [its] financial incentives with performance." (*Id.* at 127).

105. Because PURA rests the ROE reduction on the very same findings that Eversource has a right to challenge under § 16-32i to avoid a penalty, PURA erred in levying the ROE reduction and has acted arbitrarily and capriciously. Notably, PURA's findings regarding Eversource's storm performance are the *key adjudicative facts* to be determined in the upcoming penalty docket. PURA's final, predetermination of those facts for purposes of the ROE reduction

deprives Eversource of a meaningful opportunity to contest those factual findings in the penalty phase.

106. PURA's decision to impose the ROE penalty in the Final Decision based upon certain binding findings – but to then claim it will provide Eversource with an opportunity to demonstrate why those same findings should be altered or rescinded in the upcoming penalty phase in Docket No. 20-08-03RE01 that will evaluate additional monetary penalties contemplated by §§ 16-32i and 16-41 – threatens to turn that upcoming phase into a sham. The Company has a due process right to a penalty proceeding in which key adjudicative facts have not already been finally determined by the administrative tribunal.

107. Although it may be impossible now to "un-ring the bell," this court should vacate the portions of the Final Decision imposing the ROE penalty, if only so that the penalty phase is not irrevocably tainted. As it stands, issuing a final order imposing an ROE penalty based on storm mismanagement irrevocably tramples the Company's entitlement to challenge those findings in the separate, pending penalty proceeding in Docket No. 20-08-03RE01.

108. Similarly, the Final Decision states that PURA "has made specific findings that Eversource was not prudent in" executing various storm preparation and response activities and "[c]onsequently, any costs or additional costs arising from or related to such imprudent actions will be subject to disallowance in any future cost recovery proceeding." (Final Decision at 126). However, PURA's determination in this regard directly contradicts its earlier assurance that the Company:

> ...will be provided an opportunity to seek recovery of the costs incurred in responding to Tropical Storm Isaias, either in a reopened proceeding 20-08-03RE02 as Eversource suggests or in a separate proceeding... However, the Authority's current phase of its investigation into the Companies' preparation and response is not that opportunity. Consequently, the Companies' claims of violations of their substantive and due process rights are premature and misplaced.

(Nov. 6, 2020 Ruling on Motions No. 38 and 39, at 2, fn.2.)

109. Thus, by deciding that its findings constitute final, binding findings for some purposes (*i.e.,* ROE penalties and storm cost disallowances), but that those same findings are not final findings for other purposes (*i.e.*, to impose additional monetary penalties for deficient storm performance under Conn. Gen. Stat. §§ 16-32i and 16-41 in a separate contested case in Docket No. 20-08-03RE01), PURA has acted arbitrarily and capriciously and has unlawfully deprived the Company of due process.

110. The Authority's decision to deny Eversource the opportunity to rebut the proposed findings in the Final Decision (1) in a subsequent rate case proceeding where it will implement the ROE penalty determined in the Final Decision, and (2) in a subsequent proceeding to evaluate the recovery of storm costs in the case of a possible disallowance of imprudently incurred costs will result in either inconsistent and irreconcilable factual findings and penalties, or an unlawful predetermination of the outcome of the penalty in Docket No. 20-08-03RE01. The characterization of the findings with respect to storm performance as final for purposes of an ROE reduction, but not final for other purposes in order to give Eversource its statutorily required due process, demonstrates the inconsistency and arbitrary approach that PURA has taken without regard for due process.

111. The foregoing aspects of the Final Decision are unlawful, in excess of PURA's statutory authority, arbitrary and capricious and not based in substantial evidence.

COUNT FIVE

The ROE Penalty Violates the Excessive Fines Clause of the Eighth Amendment to the United States Constitution As Applied

112. Eversource incorporates herein by reference Paragraphs 1 through 111 above as if fully set forth herein.

113. Under the Eighth Amendment to the United States Constitution, "[e]xcessive bail shall not be required, nor excessive fines imposed, nor cruel and unusual punishments inflicted."

114. The protections of the Excessive Fines Clause of the Eighth Amendment are applicable to the States under the Fourteenth Amendment's Due Process Clause, and it limits a state government's power to extract payments as punishment for an offense.

115. Where a civil penalty is imposed, and the penalty is at least partially punitive, the Excessive Fines Clause applies, and the penalty must not be excessive.

116. PURA's indefinite ROE Penalty is a violation of the Excessive Fines Clause.

117. The ROE Penalty was imposed to punish Eversource for what PURA found to be failures to comply with applicable performance standards, which is in itself a punishable infraction under § 16-32i. The ROE penalty is therefore subject to the Excessive Fines Clause.

118. Further, the ROE Penalty violates the Excessive Fines Clause because it is grossly excessive. The ROE Penalty is an indefinite $31 million annualized penalty. On its face, a one-time $31 million penalty is grossly excessive considering that § 16-32i now applies. However, because the annual ROE Penalty is *indeterminate* in length -- no standards or conditions were set for termination of the ROE penalty -- the actual net present value of the ROE Penalty is many factors larger than $31 million.

119. The ROE Penalty will impair the Company's ability to attract investment for its operations, and, as a result, will negatively impact its customers due to increased costs associated with financing investments and improvements in the Connecticut distribution system.

120. Moreover, in addition to imposing the $31 million annualized open-ended ROE reduction, PURA has issued Notices of Violation in Docket No. 20-08-03RE01 arising out of the

very same alleged storm performance assessing separate, additional penalties in the amount of $30 million.[17]

121. The uncertainty and unpredictability sown by PURA's Final Decision imposing the annualized, apparently never-ending $31 million ROE penalty – in combination with the $30 million of penalties sought by PURA in the Notice of Violation in Docket No. 20-08-03RE01 – has directly and adversely affected Eversource's market capitalization, which has decreased materially in the past five months (*i.e.*, in excess of $2.5 billion) relative to industry peers. The combination of these penalties, all emanating from the same conduct, along with the widely perceived view of arbitrary and capricious regulatory action producing these outcomes, is the primary driver of that market decline.

122. In the final result, PURA has made no attempt to consider the constellation of factors that must be assessed to determine the proportionality of the ROE penalty on a legitimate basis. In fact, had PURA adhered to applicable statutory mandates, the grossly excessive nature of the ROE penalty would be readily apparent in its violation of the Eighth Amendment.

COUNT SIX

The Final Decision Fails to Properly Distinguish and Analyze Performance Standards and Imprudence.

123. Eversource incorporates herein by reference Paragraphs 1 through 122 above as if fully set forth herein.

124. In the Final Decision, PURA refuses to specify the actual footing upon which its ROE penalty rests, stating "an ROE reduction for storm performance may come from a finding of

[17] PURA's overlaying, punitive regulatory actions are exacerbating the uncertainty and unpredictability in the investment market, causing potentially irreparable damage to the Company's ability to attract capital for investment in the Connecticut distribution system, which brings property tax dollars for Connecticut municipalities and local employment.

imprudence, a failure to comply with established performance standards, or a determination of poor or deficient management based on factors in Conn. Gen. Stat. § 16-19e(a)." (Final Decision at 127.) However, none of these alternative theories provide a basis upon which an ROE penalty for storm preparation and performance may be lawfully imposed.

125. Under the legislative scheme enacted under § 16-32h and § 16-32i, included within the Company's storm performance standards approved by PURA are all "standards for acceptable performance by any utility to ensure the reliability of such utility's services in any emergency, to prevent and minimize any service outages or disruptions lasting more than forty-eight consecutive hours and affecting more than ten per cent of any utility's customers and to facilitate restoration of such services after such outages or disruptions."

126. Thus, unreasonable, imprudent, poor or deficient management and actions in connection with the preparation for, and response to, storm-related power outages are now subsumed within the Company's approved and applicable performance standards. Although PURA retains general authority to examine "poor and deficient management," it did not do so here in relation to *any* performance not encompassed within the ERP and associated standards of acceptable performance, which are governed by § 16-32h and § 16-32i.

127. In the Final Decision, PURA purports to separately consider: (1) reasonable performance under the ERP standards; (2) imprudent performance on storm preparation and response; and (3) poor and deficient management. However, the Final Decision fails to analyze the Company's performance separately, under each standard; instead relying upon findings that are inextricably blurred and overlapping. For example, the Final Decision states: "Consequently, the Authority finds that Eversource *failed to reasonably comply with established performance*

standards ***and*** *acted imprudently by failing to adequately* secure, pre-stage, and deploy sufficient line crews during the first 48 hours of storm response." (Final Decision at 54) (emphasis added.)

128. Subjecting the Company to numerous and distinct financial penalties under two standards that are indistinguishable in relation to the Company's conduct relative to those standards, and all based on the same underlying conduct, constitutes an abuse of statutory authority, unlawful process and error of law.

COUNT SEVEN

The Final Decision Improperly Undertakes a Prudence Analysis Regarding Storm Cost Recovery – An Issue that PURA Acknowledged Was Not Before It – and Misstates and Misapplies the Prudence Standard.

129. Eversource incorporates herein by reference Paragraphs 1 through 128 above as if fully set forth herein.

130. PURA's findings of "generalized" imprudence in this proceeding, untethered to consideration of actual costs, coupled with its proclamation that these findings will bind the Company in a future rate proceeding violate the Company's due process rights, are made upon improper procedure and are affected by other errors of law.

131. Throughout this proceeding, the Company protested PURA's cost prudence review, on the basis that it was prejudicial to the Company's substantive and procedural due process rights to conduct such a review outside of a ratemaking proceeding in which the Company has had an opportunity to prepare and submit a request for cost recovery to satisfy the burden of proof for "cost prudence." In rejecting the Company's protests, PURA stated, the "current phase" of the investigation is *not* a cost recovery proceeding and, therefore, the Company's "claims of violations of [its] substantive and due process rights are premature and misplaced." (Authority Ruling on Motions No. 38 and 39, November 6, 2020, at 2, fn.2.) Yet, as expected, the Authority suggests

in the Final Decision that its binding findings of imprudence in this proceeding will defeat cost recovery in the future "cost prudence" proceeding. (Final Decision at 126.)

132. In addition, assuming *arguendo* PURA had the authority in this proceeding to prejudge and preordain the disallowance of storm costs in a future proceeding, it has committed an error of law in holding that its well-established tri-partite test for considering disallowance of costs (*i.e.* defining of the standard of care by which the utility's decision will be measured; analyzing whether the utility conformed to that standard; and determining whether there is a reasonably close causal connection between the imprudent action, if any, and actual loss or damage) does not apply to the Company's recovery of storm costs.

COUNT EIGHT

The Final Decision Misconstrues and Fails to Properly Apply the Prudency Standard to Performance.

133. Eversource incorporates herein by reference Paragraphs 1 through 132 above as if fully set forth herein.

134. In the Final Decision, PURA purports to assess the prudency of Eversource's management response to Tropical Storm Isaias. Even had PURA found imprudence in the Company's storm preparation and response management activities that were *not* encompassed by the ERP standards, which it did not, PURA misapplied the prudence standard.

135. Specifically, PURA committed legal error in its application of the prudence standard by: (1) applying an impermissible hindsight analysis to the Company's conduct; (2) failing to properly consider Eversource's reasonable and good faith efforts to prepare and respond to its ERP obligations; (3) failing to identify the appropriate decision points that apply to the Company's response; and (4) failing to properly identify and consider the range of facts that

the Company considered at the time of its decisions and actions. PURA has previously defined its prudence standard as "the standard of care a reasonable person would exercise under the same circumstances confronting the management of the utility at the time of the decision to take such action." Here, however, PURA's analysis failed to apply these principles to the facts correctly.

136. PURA's findings of imprudence are therefore made upon improper procedure, are not based upon substantial record evidence, and are affected by error and misstatements of applicable law.

COUNT NINE

The Pivotal Factual Findings Underlying PURA's Assessment of Performance, Prudence and/or Poor Management are Clearly Erroneous in View of the Reliable, Probative and Substantial Evidence of Record.

137. Eversource incorporates herein by reference Paragraphs 1 through 136 above as if fully set forth herein.

138. It its Final Decision, PURA's findings and determinations adverse to Eversource all stem from two factual conclusions not supported by the record, which are: (1) that Eversource misclassified Tropical Storm Isaias as it approached the Northeast; and (2) that Eversource could have or should have procured hundreds of mutual aid line crews in advance of the storm's arrival in Connecticut to work on the system in the first 48 hours.

139. No substantial evidence exists supporting PURA's finding that Eversource misclassified the forecasted storm based on the information available to it at the time. The Final Decision omits any reference to the Company's daily "Incident Action Plans," or "IAPs," which provide a contemporaneous, day-by-day log of the factors considered in the event level designation and pre-storm planning. PURA does not acknowledge this documentation. Instead, the Final

Decision rests on the thin proposition that Eversource knew that "tropical storm conditions" and "tropical storm force winds" were going to occur and that this "necessitated" a Level 3 event classification. However, the Event Level Classification is not set on the basis of the *type* of event or the sheer existence of "tropical storm force winds." The Company's IAPs show that "tropical storm conditions" and "tropical storm force winds" were expected beginning July 31. Instead, the Event Level Classification is declared on the basis of expected *impact* and forecasted damage locations and customer outages, which involves a range of considerations including storm track, wind direction, storm intensity, stability and other factors – all glaringly omitted from discussion in the Final Decision.

140. PURA's hindsight, selective and subjective view of the record on this issue is not a substitute for objective substantial evidence supporting a finding that the Company unreasonably misclassified the forecasted impact of the storm based upon the information available to it at the time of its classification decisions.

141. In addition, PURA's finding that Eversource could have obtained hundreds of mutual aid crews from other states for staging and deployment prior to the onset of the storm is inaccurate and contradicts evidence in the record. There were no mutual aid crews available prior to the event and the Company's witnesses testified to this fact. Electric distribution companies along the eastern seaboard were not releasing mutual aid crews. There were no crews that were available that were not obtained, and no other electric utilities received mutual aid crews in advance of the storm. PURA concluded that it "finds no merit" in the Company's testimony that crews were not available, but provides no alternative theory or facts contradicting the Company's

knowledge. PURA cannot wish these purportedly available crews into existence -- or into the evidentiary record.

142. Specifically, the record is uncontroverted that as of Friday, July 31, all requests submitted to the North Atlantic Mutual Assistance Group ("NAMAG") for mutual aid crews by all participating utilities went *unfulfilled* because no utility was in a position to release crews given the uncertainty of the event. The first release of mutual aid crews among NAMAG utilities occurred on Sunday, August 2, when Florida released just 50 crews.

143. In addition, PURA finds fault with the Company in failing to procure "pivot" crews (Eversource crews originating from Massachusetts or New Hampshire). However, PURA inaccurately computes the crews that were moved and made available in the first 48 hours. (Final Decision at 52). The pivot crews transferred exactly as would be expected.[18] Within 12 hours of the event, Eversource CT had received 30% of the pivot crews. Within 48 hours of the event, Eversource CT had received 366 of the 590, representing 62% of the crew resources. A total of 716 crews were ultimately transferred, with the 590 pivot crews fully transferred within 60 hours. The Eversource MA and Eversource NH crews were among the first crews to get to the system to work, as would be expected since the crews are proximately located and owned by Eversource.

144. The Final Decision is therefore clearly erroneous and lacking a substantial basis in evidence.

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[18] Like other "mutual aid" crews, the Company's affiliate crews belong to the electric companies operating in Massachusetts and New Hampshire and are paid for by the customers of those affiliates. Because the impact of Storm Isaias was initially expected to hit the east coast, those affiliates had also gathered any crews that were available locally to complement the internal resources. When the storm shifted west on Monday August 3 and Tuesday August 4, Eversource was able to shift those incremental resources quickly to Connecticut. However, the internal crews of the Massachusetts and New Hampshire companies had to address damage on the home system before they could be released to Connecticut. As a result, arrival in Connecticut was staggered, but these crews still made it to the system quickly and before other outside resources could arrive.

COUNT TEN

The Final Decision Unlawfully Penalizes the Company for Purported Failures to Comply with Monthly Damage Reporting Requirements.

145. Eversource incorporates herein by reference Paragraphs 1 through 144 above as if fully set forth herein.

146. In the Final Decision, PURA articulated findings (potentially subject to rebuttal in Docket No. 20-08-03RE01) that the Company failed to include in its monthly damage reports certain incidents required to be reported under Connecticut General Statutes § 16-16 and Regulations of Connecticut State Agencies §§ 16-16-1 through 16-16-4.

147. At no time during the proceeding did PURA provide notice to the Company that it would investigate and consider fines against it under these sections.

148. At no time during the proceedings did PURA request discovery, evidence or briefing from any party on monthly accident reporting under these statutes and regulations.

149. In its Proposed Final Decision, PURA did not address at all issues of monthly accident reporting.

150. The first time that mention of monthly accident reporting under General Statutes § 16-16 and Regulations of Connecticut State Agencies §§ 16-16-1 through 16-16-4 and related fines appeared was in PURA's Final Decision. (Final Decision at 121-124). In proceeding in this manner, PURA deprived the Company of due process.

151. In addition, PURA has misinterpreted and misapplied the relevant statutes and regulations in terms of its findings that certain events constituted accidents that were required by law to be reported to PURA and in calculating the penalty imposed under the statute.

152. PURA has therefore committed errors of law concerning penalties to be assessed against the Company for purported omissions in accident reporting.

COUNT ELEVEN

The Final Decision Improperly and Unlawfully Found a Violation of the NU-NSTAR Merger Settlement Agreement.

153. Eversource incorporates herein by reference Paragraphs 1 through 152 above as if fully set forth herein.

154. In the Final Decision, PURA concluded that Eversource did not comply with an Authority-approved settlement agreement involving the two predecessor utilities that merged to form Eversource (designated as the "NU-NSTAR Merger Settlement Agreement") regarding an alleged failure to provide parity in resources in deploying crews among Massachusetts and Connecticut in response to Storm Isaias. (Final Decision at 52.)

155. At no time prior to the issuance of its Proposed Final Decision in this matter did PURA provide any notice that PURA would evaluate Eversource's compliance with that agreement. Instead, the first mention of that agreement appeared in PURA's Proposed Final Decision after the evidentiary record had closed, and therefore, Eversource did not have an opportunity to present record evidence or legal argument on the meaning of the settlement agreement, or that had complied with the agreement.

156. PURA's failure to provide notice to Eversource that PURA would be interpreting and evaluating Eversource's compliance with the agreement deprived Eversource of due process and a meaningful opportunity to be heard on this issue.

157. In addition, PURA erred in its interpretation and application of the agreement in that it failed to consider and properly apply the plain language of the agreement; misconstrued its

terms; and found, without evidence and factual support, that crews were not allocated in accordance with agreement.

158. The conclusion that the Company violated the NU-NSTAR Merger Settlement Agreement is therefore unlawful, in excess of PURA's statutory authority, made upon unlawful procedure, clearly erroneous in light of the substantial evidence in the record, arbitrary, capricious and characterized by abuse of discretion or clearly unwarranted exercise of discretion.

CONCLUSION

159. Administrative agencies must wield their authority fairly, dispassionately and lawfully. Administrative agencies are created by statute and must exercise their authority within the bounds of those statutes while affording due process to the entities they are entrusted to regulate. When agencies stray from these basic norms and tenets, appropriate recourse to the courts for those aggrieved is guaranteed by the constitution.

160. For all of the foregoing reasons, Eversource appeals PURA's Final Decision as it is in whole or in part:

(a) In violation of statutory provisions;
(b) In excess of PURA's statutory authority;
(c) Made upon unlawful procedure;
(d) Affected by errors of law;
(e) Clearly erroneous in light of the substantial evidence in the record;
(f) Arbitrary or capricious or characterized by an abuse of discretion or clearly unwarranted exercise of discretion.

161. Eversource has exhausted all administrative remedies and is aggrieved by the Final Decision.

WHEREFORE, Eversource appeals from PURA' s Final Decision as set forth above and prays judgment:

(a) Sustaining this appeal;

(b) Reversing or Vacating PURA's Final Decision in whole or in part;

(c) Granting such other relief as the Court deems just and proper.

THE PLAINTIFF-APPELLANT
THE CONNECTICUT LIGHT AND POWER
COMPANY d/b/a EVERSOURCE ENERGY

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EXHIBIT A

STATE OF CONNECTICUT

PUBLIC UTILITIES REGULATORY AUTHORITY
TEN FRANKLIN SQUARE
NEW BRITAIN, CT 06051

DOCKET NO. 20-08-03 INVESTIGATION INTO ELECTRIC DISTRIBUTION COMPANIES' PREPARATION FOR AND RESPONSE TO TROPICAL STORM ISAIAS

April 28, 2021

By the following Commissioners:

Marissa P. Gillett
John W. Betkoski, III
Michael A Caron

DECISION

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DECISION

I. INTRODUCTION

Shareholders or Ratepayers. A private corporation or a public utility. The questions the citizens of Connecticut were left asking after the summer of 2020 was which of these two groups matter more to the state's monopoly electric utilities and which of these two types of companies would show up in their time of need, after a catastrophic storm plunging many into darkness for a week or more?

Without a doubt, a private corporation showed up for Tropical Storm Isaias in the form of Eversource – not a company who understood its public service obligation to the State or its citizens. Captive customers, who have no choice in their distribution service provider, experienced extended outages, faulty or inoperable communications systems, inaccurate and inconsistent information, public safety hazards left unattended, the sight of crews lingering with no work to be done; all with the tone-deaf reassurances that the company's storm response had, in fact, been exemplarary. Meanwhile, in stark contrast: shareholders were met with assurances from the company's CEO that ratepayers would foot the bill for hundreds of millions of dollars in storm costs – cost recovery for which neither utility has even applied, but instead have fought tooth and nail against providing transparent and timely documentation of throughout this proceeding.

As the regulators of these monopoly utilities, we do not make these claims lightly. Unfortunately, we find ourselves with much more than a public image problem on our hands. Our public utilities, and Eversource in particular, have failed us and continue to fail us by putting shareholders above the rights and good of the citizens of Connecticut. Public utilities operate in the State only at the consent of this body and the people of Connecticut. It is far past time for the public utilities of this State to act like one. We hope that this investigation serves as a turning point. This is an all hands on deck moment. We need all stakeholders and citizens to help hold our public utilities to account. We should not be afraid to assess failures and declare room for improvement out of a concern that we will collectively or individually be accused of leaving room for improvement in the first instance. Indeed, if not now, when?

The following decision strikes out in that direction, presenting the substantial evidence on which we base our findings and detailing the performance standards against which we evaluated both Eversource and UI. It is the inherent legal right of both companies to challenge our findings through the appellate process, and presumably one or both will, given the financial consequences at stake. However, we would much rather they challenge themselves to rectify the deficiencies found in this investigation. Connecticut ratepayers deserve nothing less than the full attention of both Eversource and The United Illuminating Company as we embark on next steps – not a corporation doubling down in continued defense of its abject failures.

What follows is a culmination of our eight-month investigation into Eversource's and UI's preparation for, and response to, Tropical Storm Isaias.

A. SUMMARY

It goes without saying that 2020 was a difficult year for the citizens of Connecticut. In March, the global COVID-19 pandemic arrived in earnest and began to spread quickly, resulting in Governor Lamont declaring a public health and civil preparedness emergency. The pandemic immediately changed everyone's lives. Amidst this massive dislocation, Tropical Storm Isaias barreled into the State over the first weekend of August. A disrupted summer quickly spiraled into chaos for many residents as blocked roads and power outages extended more than a week. Residents, elected officials, and businesses all expressed stories of frustration, confusion, and anger – of safety issues, lost business, and spoiled medicine and food.

In the immediate wake of Tropical Storm Isaias and the resulting public response, the Public Utilities Regulatory Authority (Authority or PURA) opened this investigation and performance review to examine the electric distribution companies' (EDCs) performance in preparing for, responding to, and recovering from the storm. This Decision is the culmination of that months-long investigation and details the Authority's findings and conclusions as to whether the EDCs met acceptable performance criteria and managed the storm preparation and response prudently, efficiently, and with care for public safety. The Decision then makes specific orders requiring improvements to the EDCs' emergency response plans and identifies the consequences arising from the Authority's findings and conclusions.

In short, the Authority concludes that The Connecticut Light and Power Company d/b/a Eversource Energy (Eversource) failed to comply with certain applicable performance standards and failed to manage its preparation for and response to Tropical Storm Isaias prudently and efficiently. Specifically, Eversource did not satisfy the performance standards for managing its municipal liaison program, executing its Make Safe responsibilities, communicating critical information to its customers, or meeting its obligation to secure adequate resources in a timely manner to protect the public safety and to provide for the overall public interest.

While underwhelming in specific instances, The United Illuminating Company's (UI) preparation for and response to Tropical Storm Isaias was markedly better than that of Eversource. The Authority ultimately concluded that UI generally met the standards of acceptable performance and conducted itself prudently and efficiently, with certain exceptions noted herein. This conclusion notwithstanding, neither Eversource nor UI fully met the Authority's or their respective customers' reasonable expectations for managing a major storm event. Notably, the Authority's investigation identified a substantial number of areas requiring correction or improvement by Eversource and UI. Ratepayers across the State should expect, and are entitled to, a more transparent and solutions-oriented storm preparation and restoration response *when* such an event occurs again.

As a consequence of these findings, the Authority will require Eversource and UI to modify, in any pending or future rate proceeding, their rates to reflect a downward adjustment of 90 and 15 basis points, respectively, in their allowed rate of return on equity (ROE). The purpose of this reduction in ROE is to align the EDCs' management performance in future storm response efforts with the EDCs' financial performance. In

addition, the Authority will require various enhancements to emergency response programs of the EDCs so that both the companies and the ratepayers of Connecticut are better situated to face future climate events similar to or more intense than Tropical Storm Isaias. Further, the Authority reiterates previous orders for the EDCs to develop a heightened state of readiness, and to ensure that adequate field and support resources are available to support emergency response actions by the onset of the storm and within the first 48 hours of a storm event to ensure the public safety.

The Authority will conduct a reopened proceeding in Docket No. 20-08-03RE01, PURA Consideration of Civil Penalty and Enforcement Action Against the Electric Distribution Companies After Storm Isaias Investigation, to consider issuing civil penalties and further enforcement orders for the instances of noncompliance found during this investigation.

Finally, in future rate proceedings, the Authority may disallow specific storm response and recovery costs or other expenditures sought by the EDCs as a result of the determinations made during this investigation that the EDCs' actions did not conform with the prudency standard.

B. TROPICAL STORM ISAIAS

Tropical Storm Isaias originated south of Puerto Rico and followed a path northward along the east coast of the United States for 10 days. Eversource 30-Day Event Report, p. 27. On August 4, 2020, the eastern part of the storm hit Connecticut, causing extensive damage across the entire State, affecting all 149 communities served by Eversource and all 17 communities served by UI. Eversource 30-Day Event Report, pp. 32 and 62; UI 30-Day Storm Report, p. 1. The brunt of the storm was felt between 2:00 p.m. and 8:00 p.m. on August 4, 2020; however, the storm did not completely pass until approximately 2:00 a.m. on August 5, 2020. Eversource 30-Day Event Report, pp. 3 and 57.

Most of the State experienced sustained wind speeds over 30 miles per hour (mph), with some areas experiencing wind speeds over 50 mph. Eversource 30-Day Event Report, p. 3; UI 30-Day Storm Report, p. 2. Peak wind gusts reached 67 mph and several tornado warnings were issued for the afternoon of August 4, 2020. Eversource 30-Day Event Report, p. 3. The strong winds damaged and uprooted trees across the State, causing blocked roads and significant damage to power lines, utility poles, transformers, and other equipment. Eversource 30-Day Event Report, p. 4; UI 30-Day Storm Report, p. 1.

For Eversource, the storm resulted in more power outages than Superstorm Sandy. Eversource 30-Day Event Report, pp. 61 and 76. A total of 21,669 damage locations in the Eversource service territory resulted in 632,632 peak outages, approximately 50% of its customer base, and 1,152,038 total outages over the course of the recovery period. Id., pp. 75 and 76. Eversource's restoration effort included replacing 1,924 utility poles and 1,161 transformers, and repairing over 500 miles of downed wire. Eversource Response to Interrogatory LCG-3, Attachment 1; Eversource 30-Day Event Report, p. 3. Power was restored to 99% of Eversource's customers by 6:00 p.m. Tuesday, August 11, 2020, and full restoration was completed on Thursday,

August 13, 2020. Id., p. 75; Eversource Response to Interrogatory AG-033, Attachment 3.

UI experienced over 1,700 outage-causing events in its service territory. UI's system documented 113,433 peak outages, approximately 33% of its customer base, and 157,300 total outages over the course of the recovery period. UI 30-Day Storm Report, p. 10. UI's restoration effort included replacing 206 broken utility poles and 268 transformers, and repairing over 1,000 miles of downed wire. Id., p. 1. UI completed restoration to 99% of its customers by 7:00 p.m. on August 10, 2020, and completed full restoration at 1:19 a.m. on August 12, 2020. Id., p. 2; UI Response to Interrogatory LCG-245.

Tropical Storm Isaias occurred in the midst of the global COVID-19 pandemic, which began to significantly impact the State of Connecticut and its residents in March 2020. In response to the COVID-19 pandemic, the Governor of the State of Connecticut declared a public health emergency and a civil preparedness emergency on March 10, 2020, which was in effect and ongoing throughout August 2020. Notably, however, the public health emergency was declared almost a full five months before the occurrence of the storm emergency event discussed herein.

C. BACKGROUND OF THE PROCEEDING

In response to the onset of and initial response to Tropical Storm Isaias, Governor Lamont requested that the Authority investigate the EDCs' preparation for and response to Tropical Storm Isaias. On August 6, 2020, the Authority established the above-captioned proceeding.

Upon initiating this investigation, the Authority ordered each EDC to undertake a number of steps as the response and restoration activities unfolded, including to immediately inform the Authority of any significant changes or delays to restoration times announced to customers, and to continue updating the Authority on restoration activities. Further, the Authority required each EDC to maintain and preserve detailed records of its preparation and response efforts, including all communications. Additionally, in accordance with the General Statutes of Connecticut (Conn. Gen. Stat.) § 16-32h(h), each EDC was directed to submit a supplemental emergency response report to the Authority within thirty (30) days of the emergency event that described the EDC's preparation for and response to Tropical Storm Isaias, as well as any proposed corrective actions or improvements to the emergency response plan.[1]

Subsequently and in furtherance of its investigation, the Authority reviewed the EDCs' implementation of their respective emergency response plans filed in accordance with Conn. Gen. Stat. § 16-32e and also assessed whether the EDCs complied with the standards for emergency preparation and restoration of service established in accordance with Conn. Gen. Stat. § 16-32h. The investigation further encompassed an

[1] The supplemental emergency response reports submitted within thirty (30) days of the emergency event by each EDC are referenced herein as the Eversource 30-Day Event Report and the UI 30-Day Storm Report.

assessment of each company's outage/damage prediction efforts, storm preparedness, adequacy of staffing and equipment, communications, outage/damage assessment activities, restoration management, and after action reporting.

In addition, the proceeding comprised evidence gathering to support determinations on the prudency and reasonableness of the EDCs' storm preparation, response, and recovery activities, as well as considerations regarding whether (or not) the EDCs employed prudent management and operating procedures in incurring storm-related costs, or prudently or imprudently avoided any operational costs that could have mitigated restoration timelines or overall expenses.

D. CONDUCT OF THE PROCEEDING

On August 7, 2020, the Authority issued a Notice of Proceeding and Orders for Emergency Response stating that it was initiating a broadly scoped investigation of the EDCs' preparation for and response to Tropical Storm Isaias. On August 14, 2020, the Authority issued a revised Notice of Proceeding indicating that the investigation would be conducted as a contested proceeding and encompass determinations regarding compliance with performance standards and prudency of the EDCs' management of the storm response.[2] The Authority provided notice that it was conducting the proceeding pursuant to Conn. Gen. Stat. §§ 16-9, 16-11, 16-19, 16-19e, 16-32e, 16-32h, 16-32i, 16-41, 16-244, and 4-177 *et seq*.

The Authority issued a Notice Regarding Investigation Timeline and Process on August 14, 2020. By Notice of Procedural Conference dated October 2, 2020, the Authority held a procedural conference remotely on October 15, 2020, to discuss scheduling and other procedural matters.

By Notice of Hearing dated October 5, 2020, the Authority conducted public comment hearings on October 21 - 23, 2020. The Authority also received hundreds of written public comments into the record from elected officials and ratepayers, posted publicly as correspondence in the Docket. See *infra* Section I.E. By Notice of Hearings dated November 24, 2020, and December 16, 2020, the Authority conducted evidentiary hearings on December 14 - 16, 2020, December 18, 2020, December 21 - 23, 2020, and January 6 - 7, 2021. By Notice of Hearing dated December 23, 2020, the Authority conducted late file exhibit hearings on January 20 - 22, 2021.

Pursuant to Conn. Gen. Stat. § 16-18a, the Authority retained a consultant to assist in this proceeding. Pursuant to a Notice of Opportunity to Comment dated September 3, 2020, Parties and Intervenors were invited to submit comments on the Authority's retention of a consultant by September 10, 2020. The Authority did not

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[2] To ensure that the EDCs were given adequate notice "of the claims to be defended against" and were able to "anticipate the possible effects of [this] proceeding," Rivera v. Liquor Control Commission, 53 Conn. App. 165, 173 (1999), the revised Notice of Proceeding notified the EDCs that the investigation would "encompass determinations on the prudency and reasonableness of the EDCs' storm preparation, response, and recovery activities." Revised Notice of Proceeding, p. 1.

receive any comments in response to the Notice. The Authority retained The Liberty Consulting Group as its consultant.

The Authority and its consultant Liberty Consulting Group issued more than 700 interrogatories in this proceeding. Hundreds of additional interrogatories were issued by other Parties to the proceeding, including by the Office of Consumer Counsel (OCC) and the Office of the Attorney General.

The Authority issued a proposed final Decision in this matter on March 19, 2021. All Parties and Intervenors were provided the opportunity to submit Written Exceptions and present Oral Argument on the proposed final Decision. Oral Argument in this matter took place on April 19, 2021.

E. PARTIES AND INTERVENORS

The Authority recognized the following as Parties to this proceeding: the OCC, Ten Franklin Square, New Britain, CT 06051; the Commissioner of the Department of Energy and Environmental Protection (DEEP), 79 Elm Street, Hartford, CT 06106; Connecticut Office of the Attorney General, Ten Franklin Square, New Britain, CT 06051; Eversource Energy Services Company, 107 Selden Street, Berlin, CT 06037; and The United Illuminating Holdings Corporation, 180 Marsh Hill Road, MS AD-2A, Orange, CT 06477. The Authority granted Intervenor status to the following: Utility Workers Union of America, Local 470-1; City of Bridgeport; City of Danbury; City of Milford; City of Norwalk; Connecticut Conference of Municipalities (CCM); Connecticut Council of Small Towns; Town of Bethel; Town of Brookfield; Town of Easton; Town of Monroe; Town of New Canaan; Town of New Fairfield; Town of Newtown; Town of Ridgefield; Town of Redding; Town of Seymour; Town of Vernon; Town of Weston; Town of Westport; and Town of Wilton.

F. PUBLIC COMMENT

The Authority conducted public hearings for the purpose of receiving comments from the general public concerning the investigation. A total of three public hearings were conducted remotely: October 21, 2020; October 22, 2020; and October 23, 2020. A total of 16 persons provided testimony regarding the Authority's investigation at the three public hearings.

State Senator Paul Formica (20th Senate District, and Ranking Member, Energy and Technology Committee) provided testimony on the need for better communication from Eversource to its municipalities, tree removal crews, and ratepayers. The Senator also commented on the number of out-of-state contractors brought in for the restoration process, as well as regarding customers concerned about high bills. Tr. 10/22/20, pp. 2-5. State Representative Stephen Harding (107th House District) commented on Eversource's restoration efforts following the tropical storm. The Representative remarked on the significant delays in power restoration, including a lack of crews or general response in the Towns of Bethel and Danbury for several days. Representative Harding asked that PURA take the necessary steps to ensure problems with restoration efforts be addressed, particularly the management of out-of-state crews. Tr. 10/21/20, pp. 5-9. State Representative Tom Delnicki (14th House District) highlighted the

contrast of the response to Tropical Storm Isaias and Superstorm Sandy in 2012. The Representative further noted the large number of out-of-state contractors that were brought in, which resulted in a lack of familiarity of crews with their assigned towns. Representative Delnicki also provided comments regarding his concern about the recent rate increases, and emphasized the need for severe accountability for the inadequate response to the storm. Tr. 10/22/20, pp. 5-9.

Mayor David Martin of Stamford provided comments on the lack of communication from Eversource to the City of Stamford's emergency management team, as well as the lack of initial Make Safe crews in the days after Tropical Storm Isaias. In particular, Mayor Martin testified that in addition to no Make Safe crews being assigned to Stamford, there was also no effective way to communicate the city's priorities to Eversource. Tr. 10/21/20, pp. 1-5. Stamford Fire Chief and Emergency Management Director Trevor Roach reiterated the lack of communication from Eversource regarding Make Safe crews. Besides noting the unavailability of Make Safe crews in the days after Tropical Storm Isaias, Chief Roach elaborated on the ineffectiveness of communicating priorities through municipal liaisons. Tr. 10/22/20, pp. 9-11. Fire Chief John Oates from the Joint Council of Connecticut Fire Services also provided comments. In his comments, Chief Oates detailed the lack of a reliable system for emergency responders to receive accurate data from Eversource on the number and location of outages. Tr. 10/22/20, pp. 15-18. Chief Oates went on to note that the incident management coordination was "absent" during the response to Tropical Storm Isaias; Eversource was neither able to inform communities of the location of their staff and vehicles nor was the company able to provide an accurate estimate on outage restoration. Tr. 10/22/20, pp. 15-18.

Several residents provided comments at the public hearings as well. Customers highlighted the need to stay rate increases, especially as customers were not being reimbursed for food and medication that spoiled during the sustained outages. Tr. 10/22/20, pp. 12-14. There were numerous comments that detailed the lack of running water faced by residents who rely on well water, exacerbated by the long power restoration times experienced in response to Tropical Storm Isaias. Tr. 10/21/20, pp. 10-14. There were also numerous grievances from residents regarding poor communication from Eversource, not only with its customers but also with its field staff and out-of-state contractors. Tr. 10/22/20, pp. 19-23.

Additionally, the Authority received more than 511 written comments from the public expressing frustration with the EDCs' response to Tropical Storm Isaias, including 48 sets of written comments from public officials (See, Attachment 1). The vast majority of these comments mentioned the monetary losses incurred from refrigerated items spoiling and due to the acquisition of fuel needed for back-up generators. Comments also indicated frustration with the EDCs' communications ahead of and subsequent to the tropical storm, primarily evidenced by the inability to contact Eversource and, to a lesser extent UI, to report outages and other problems – including life safety issues such as downed wires. Other common concerns raised through the written comments regarding Eversource's and, to some extent UI's, storm response included: long wait times on the phone; the lack of available call center representatives; the lack of useful information; inaccurate or outdated outage reporting on the EDC website; inaccurate restoration times; and failure of the two-way texting system.

II. REGULATORY FRAMEWORK AND APPLICABLE LEGAL STANDARDS

A. REGULATORY FRAMEWORK FOR EMERGENCY EVENT PERFORMANCE REVIEW

In response to previous major storm events, the Authority conducted broad investigations into public service companies', including the EDCs', performance in addressing outages and service restoration, staging and deploying of response personnel, coordinating with municipalities, and providing timely and accurate communications to customers, other service providers and municipalities. See, e.g., Docket No. 11-09-09, PURA Investigation of Public Service Companies' Response to 2011 Storms; Docket No. 10-03-08, Investigation of the Service Response and Communications of The Connecticut Light and Power Company (CL&P) and The United Illuminating Company (UI) following the Outages from the Severe Weather over the Period of March 12 through March 14, 2010; Docket No. 86-11-18, DPUC Review of Performance of UI, CL&P and SNETCO in Restoring Service After Storm Carl. The investigations were conducted pursuant to the Authority's general oversight powers, including under Conn. Gen. Stat. §§ 16-11 and 16-19e.

Tropical Storm Irene in August 2011 and the subsequent October Nor'easter caused lengthy, wide-spread service outages. The ensuing ubiquitous public outrage precipitated the General Assembly's passage of Public Act 12-148, An Act Enhancing Emergency Preparedness and Response (Act). Sections of the Act were promulgated as Conn. Gen. Stat. §§ 16-32h and 16-32i. Among other things, the Act required the Authority to develop specific performance standards for the EDCs in responding to an emergency[3] and authorized substantial penalties for noncompliance. Id., §§ 3 and 4.

Importantly, the Act expands, rather than circumscribes, the Authority's regulatory powers. The addition of specific performance standards and corresponding penalties provide the Authority with an essential tool in holding the EDCs accountable for their performance and operation as public service companies. In addition to this tool, the Authority continues to have the statutory power and obligation to "keep fully informed as to the . . . manner of operation of all public service companies in respect to their adequacy and suitability to accomplish the duties imposed upon such companies by law" and to "order . . . such changes in the manner of operation, as may be reasonably necessary in the public interest." Conn. Gen. Stat. § 16-11. Similarly, the Authority remains tasked with ensuring public service companies operate prudently, efficiently, and with care for public safety. Conn. Gen. Stat. § 16-19e.[4]

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[3] The term "emergency" is defined in Conn. Gen. Stat. § 16-32e(a) and includes, among other things, "hurricane, tornado, [and] storm."

[4] Conn. Gen. Stat. § 16-19e states, in relevant part, that the "Authority shall examine and regulate. . . the operations and internal workings of public service companies . . . in accordance with the following principles: . . . (2) that the public service company shall be fully competent to provide efficient and adequate service to the public in that such company is technically, financially and managerially expert and efficient; (3) that the authority and all public service companies shall perform all of their respective public responsibilities with economy, efficiency and care for public safety . . . ; (4) that the level and structure of rates be sufficient, but no more than sufficient, to allow public service companies to . . . provide appropriate protection to the relevant public interests, both existing and foreseeable . . . ; (5)

These statutory powers and obligations are applicable to all public service companies; however, safe and reliable electric service is recognized as being essential to the State. The General Assembly has specifically declared that: "(1) The provision of affordable, safe and reliable electricity is key to the continuing growth of this state and to the health, safety and general welfare of its residents; ... [and] (8) The assurance of safe, reliable and available electric service to all customers in a uniform and equitable manner is an essential governmental objective." Conn. Gen. Stat. § 16-244. Consequently, the Authority's investigation in the instant proceeding was not simply focused on a review of specific performance standards but encompassed a broad evaluation of the EDCs' compliance with Title 16, Authority regulations and orders, and other applicable statutory requirements.[5]

In the wake of Tropical Storm Isaias, the Authority initiated this docket pursuant to its regulatory authority under Conn. Gen. Stat. §§ 16-9, 16-11, 16-19, 16-19e, 16-32e, 16-32h, 16-32i, 16-41, 16-244, and 4-177 *et seq.*[6] This is the Authority's first investigation of a public service company's emergency response performance that specifically applies Conn. Gen. Stat. §§ 16-32h and 16-32i.[7] Consequently, the Authority has adapted its prior framework for conducting storm investigations to incorporate these new statutory powers as an additional essential tool and to address procedural deficiencies in prior proceedings.[8]

To ensure this performance review was comprehensive and consistent with governing statutes, the Authority conducted an evaluation to determine if:

(1) The EDCs conformed to the standards of acceptable performance pursuant to Conn. Gen. Stat. § 16-32i;

(2) The EDCs managed the storm preparation and response prudently, efficiently, and with care for public safety in accordance with Conn. Gen. Stat. § 16-11 and 16-19e; and

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that the level and structure of rates charged customers shall reflect prudent and efficient management of the franchise operation; . . ."

[5] For example, under Conn. Gen. Stat. § 28-5(b), an EDC must carry out the assigned duties and functions in the Department of Emergency Services and Public Protection's comprehensive plan and program for the civil preparedness.

[6] A review of an EDC's performance is required by Conn. Gen. Stat. § 16-32i if more than ten percent (10%) of the EDC's customers were without service for more than forty-eight consecutive hours.

[7] The Authority's investigation of Storm Sandy referenced Public Act 12-148 but did specifically address the application of Conn. Gen. Stat. § 16-32i. Decision, August 21, 2013, Docket No. 12-11-07, PURA Investigation into the Performance of Connecticut's Electric Distribution Companies and Gas Companies in Restoring Service Following Storm Sandy.

[8] In particular, the Authority is conducting this proceeding as a contested case under the Uniform Administrative Procedures Act, Conn. Gen. Stat. § 4-177 *et seq.* Motion No. 4 Ruling, August 14, 2020. A contested proceeding with proper notice provides a transparent and robust forum with due process protections and enables the Authority to develop a complete factual record and make critical determinations in an administratively efficient and timely manner. As a result, the Authority does not need to defer until later proceedings any specific findings such as whether certain actions were prudent. See, Decision, August 1, 2012, Docket No. 11-09-09, PURA Investigation of Public Service Companies' Response to 2011 Storms, pp. 16-17, 19 (finding that the Authority was constrained by the notice and scope of an uncontested proceeding from making prudency findings and ordering reductions in return on equity).

(3) The EDC's performance incentives for storm response are adequately aligned with financial incentives.

Absent from this investigation is the allowance or disallowance of any specific costs incurred by the EDCs related to Tropical Storm Isaias. The EDCs have not yet sought recovery of such costs. When, or if, they do so, the Authority will review such costs through a contested rate proceeding and render determinations as to any appropriate recovery. The factual record and associated determinations and conclusions made in this proceeding will be considered in such future rate proceeding.

The following sections address the separate components of the performance evaluation undertaken in the instant proceeding.

B. COMPLIANCE WITH THE STANDARDS OF ACCEPTABLE PERFORMANCE PURSUANT TO CONN. GEN. STAT. § 16-32i

Conn. Gen. Stat. § 16-32i requires the Authority to assess whether the EDCs complied with specific performance standards or Authority orders. Although Conn. Gen. Stat. § 16-32i is silent as to the appliable legal standard, the Authority will apply a reasonableness standard. The Authority and its predecessor have historically examined utility storm performance using a reasonableness standard. See, e.g., Decision, May 12, 1987, Docket No. 86-11-18, DPUC Review of Performance of UI, CL&P and SNETCO in Restoring Service after Storm Carl, pp. 7 and 12 (finding that CL&P's overall storm response was reasonable but that SNET unreasonably delayed restoring service to its customers); Decision, August 1, 2012, Docket No. 11-09-09, PURA Investigation of Public Service Companies' Response to 2011 Storms, p. 18 (noting that industry norms do not necessarily represent the "standard of reasonable care" while demurring to make prudency determinations).

The Authority considered alternative legal standards, including strict liability and prudency; however, it declines to adopt these approaches. Although certain performance standards might lend themselves to a strict liability standard, emergency responses by their nature require a more flexible regulatory approach tailored to the specific conditions of each event. Likewise, while a utility's overall management and operations, and therefore rate recovery, are subject to the prudency standard, the utilities' compliance with specific adopted performance standards for responding to emergencies is better considered under the reasonableness standard.

Notably, Conn. Gen. Stat. §§ 16-32h and 16-32i are modelled directly on Massachusetts General Law Ch. 164, § 1J. See, Testimony of UIL Holding Corp., Senate Bill No. 23, 2012 Session, p. 4.[9] In evaluating utilities' storm performance under the provisions of § 1J, the Massachusetts Department of Public Utilities (DPU) applied a reasonableness standard. Massachusetts Elec. Co. v. Dep't of Pub. Utilities, 15 N.E.3d 176, 183-185 (Mass. 2014). The utilities appealed, arguing that the DPU erred by not applying the prudence standard; however, in an extensive analysis, the court affirmed the DPU's use of the reasonableness standard. Id. In particular, the court noted the distinction between a utility's eligibility for rate recovery, which is subject to the prudence standard, and a utility's public service obligation to restore service. Id., p. 185 ("Where a company during an emergency event must respond to priority 'wires-down' calls or restore service to critical facilities, among other responsibilities, the consequences of any deficiency in the company's performance are potentially catastrophic. In such a context, it was logical for the department to impose a higher standard on the utilities than simply determining whether, from a business perspective, the companies acted prudently.").

The Authority finds the court's analysis both persuasive and consistent with the Authority's past practice in reviewing public service companies' storm performance. Therefore, the Authority adopts a reasonableness standard for assessing compliance under Conn. Gen. Stat. § 16-32i with any standard of acceptable performance in emergency preparation or restoration or with any order of the Authority.

As discussed further in Section III.B. below, pursuant to Conn. Gen. Stat. § 16-32h, the Authority established emergency performance standards for the EDCs in Docket No. 12-06-09, PURA Establishment of Performance Standards for Electric and Gas Companies (Performance Standards Decision). As a result, the EDCs must comply with a number of specific performance standards related to storm preparation, communications, and restoration of service. The Authority's evaluation of the EDCs' performance will, therefore, depend upon whether the EDCs reasonably complied with such standards or other relevant orders.

Upon a finding that an EDC failed to reasonably comply with the performance standards, the Authority shall issue orders to enforce the performance standards and may levy civil penalties, after a hearing in a contested proceeding. Conn. Gen. Stat. § 16-32i. Civil penalties are to be issued pursuant to Conn. Gen. Stat. § 16-41. Id.

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[9] Mass. Gen. Law Ch. 164, § 1J states: "The department shall promulgate rules and regulations to establish standards of acceptable performance for emergency preparation and restoration of service for electric and gas distribution companies doing business in the commonwealth. The department shall levy a penalty not to exceed $250,000 for each violation for each day that the violation of the department's standards persists; provided, however, that the maximum penalty shall not exceed $20,000,000 for any related series of violations. The department shall open a full investigation, upon its own initiative, or upon petition of the attorney general or by the city council in an affected city or by the board of selectmen in an affected town, regarding a violation of the department's standards of acceptable performance to determine whether the electric or gas distribution company violated such standards; . . ."

As noted in Section I.A. above, the Authority will conduct a reopened proceeding in Docket No. 20-08-03RE01, PURA Consideration of Civil Penalty and Enforcement Action Against the Electric Distribution Companies After Storm Isaias Investigation, to consider issuing civil penalties and further enforcement orders for the instances of noncompliance found during this investigation. Therefore, if warranted, the EDCs will receive a notice of violation (NOV), in accordance with Conn. Gen. Stat. § 16-41, identifying the relevant performance standard or order, the basis for the NOV, and prescribed civil penalty. Further, the EDCs will have the opportunity in Docket No. 20-08-03RE01 for a hearing in a contested proceeding to address the NOV. Importantly, in the reopened proceeding, the Authority may, for cause shown, rescind, reverse, or alter a finding of non-compliance with a performance standard made in this Decision. Conn. Gen. Stat. § 16-9. Consequently, the Authority's framework for conducting a storm response review provides the EDCs with full, if not redundant, statutory due process rights.[10]

C. PRUDENCY REVIEW OF EDCS' MANAGEMENT OF STORM PREPARATION AND RESPONSE

In addition to the specific performance standards established pursuant to Conn. Gen. Stat. § 16-32h and the remedies codified in Conn. Gen. Stat. § 16-32i, the Authority continues to exercise broad regulatory powers in order to protect the public interest and to ensure public service companies operate prudently, efficiently, and with care for public safety. See, e.g., Conn. Gen. Stat. §§ 16-11, 16-19, and 16-19e. Consequently, the Authority is obligated to verify not only that the EDCs satisfied the enumerated performance standards, but that they also conducted their storm preparation and response in a prudent manner.

In assessing a utility's management and operations, the Authority applies the prudence standard, which is the standard of care a reasonable person would exercise under the same circumstances confronting the management of the utility at the time of the decision to take such actions. See, e.g., Decision, February 27, 2003, Docket No. No. 99-09-12-RE02, In Re Connecticut Light & Power Co.; Decision, August 6, 2008, Docket No. 08-02-06, DPUC Investigation into The Connecticut Light and Power Company's Billing Issues, p. 10.

The Connecticut Supreme Court has affirmed this standard, stating that the "prudence of a management decision depends on good faith and reasonableness, judged at the time the decision is made." Connecticut Light & Power Co. v. Dep't of Pub. Util. Control, 216 Conn. 627, 645 (1990) (citing Violet v. Federal Energy Regulatory Commission, 800 F.2d 280, 282–83 (1st Cir. 1986)); Office of Consumer Counsel v. Dept. of Public Utility Control, 44 Conn. Supp. 21, 31-32 (1994); see, also, Decision, June 6, 2012, Docket No. 11-12-02, Application of PSEG New Haven LLC for Establishment of 2012 Revenue Requirements (finding the "prudency standard is applied based on information that was known, or should have been known, prior to any

[10] In its written exceptions, Eversource raised a number of prospective due process concerns regarding the assessment of penalties and potential future storm cost disallowances. These issues are not ripe for review here.

action or inaction by a person or company."). The prudency of a management decision is judged based on what the utility knew or should have known at the time the decision was made.[11]

Prudency determinations are a core component of utility regulation because public service companies are entitled to recover their prudently incurred expenses. Conn. Gen. Stat. § 16-19e. Consequently, a finding of imprudent management may result in the disallowance of cost recovery by the utility. Specifically, the costs or additional costs arising from an imprudent decision or action are not recoverable by the utility. See, e.g., Decision, August 6, 2008, Docket No. 08-02-06, DPUC Investigation into the Connecticut Light and Power Company's Billing Issues, p. 11 (if "[a]ctions by regulated public utilities which are found to constitute imprudent management . . . result in increased costs[, such costs] are generally disallowed."); Decision, July 21, 1988, Docket No. 87-11-01, Public Hearing to Investigate Whether Charges or Credits Made Under the Purchased Power, Fossil Fuel, Purchased Gas Adjustment and/or Generation Utilization Adjustment Clauses Are Accurate for the Preceding Three Months, p. 14 (same).

In certain dockets, the Authority has articulated a tri-partite methodology for applying the prudency standard when disallowing specific costs for which utilities have sought recovery. This methodology involves identifying any applicable utility performance standard, determining whether the utility conformed to the standard or otherwise acted imprudently, and then disallowing those costs causally connected to the nonconformance or imprudent action. See, Decision, August 1, 2012, Docket No. 11-09-09, PURA Investigation of Public Service Companies' Response to 2011 Storms, p. 17, fn.7.

However, in practice, the Authority has employed this methodology loosely - typically by making findings of imprudence and, subsequently, disallowing any costs arising from or related to the imprudence. See, e.g., Decision, March 12, 2014, Docket No. 13-03-23, Petition of The Connecticut Light and Power Company for Approval to Recover its 2011-2012 Major Storm Costs (finding the utility was imprudent in managing a storm reserve fund and disallowing the resulting $6.128 million cost); Decision, August 6, 2008, Docket No. 08-02-06, DPUC Investigation into The Connecticut Light and Power Company's Billing Issues, pp. 14-15 (finding the utility's management of a billing error was imprudent and disallowing costs attributable to the error). Therefore, while the tri-partite methodology may generally be appropriate for cost recovery or ratemaking proceedings, it is neither required by statute or regulation nor has the Authority applied it so rigidly as to constrain its statutory prudence review.

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[11] Eversource misconstrues OCC v. Dept. of Public Utility Control, 44 Conn. Supp. 21, in an effort to create a new analytical element to the prudence standard, which the company refers to as the "hindsight prohibition." Written Exceptions, pp. 55-56. According to Eversource, this new element would require the Authority, before making a finding of imprudence, to demonstrate a utility knew the prudent course of action but refused or neglected to take it. While the Authority understands Eversource's motivation here in light of its Tropical Storm Isaias response, the Authority declines to modify the well-established prudency standard for Eversource's benefit.

Moreover, the tri-partite methodology for disallowing costs is not applicable to a proceeding, such as this, where cost recovery is not under consideration. Here, the Authority is making determinations as to whether certain actions or decisions by the EDCs were imprudent. While the Authority often performed prudency reviews simultaneous with cost recovery or ratemaking proceedings, there is no statute, regulation, or binding precedent that prohibits the Authority from making determinations as to the prudency of the EDCs' actions or decisions in this proceeding based on the substantial record.

Indeed, the Authority has, on a number of occasions, previously made prudency findings regarding utility management while deferring the quantification of costs until adequate information was available. See, Decision, August 6, 2008, Docket No. 08-02-06, DPUC Investigation into The Connecticut Light and Power Company's Billing Issues, pp. 14-15, and 32 (finding CL&P's actions imprudent and ordering CL&P to file a report quantifying incremental costs arising from a billing system error); Decision, November 17, 1999, Docket No. 98-09-24, Application of the Attorney General of the State of Connecticut to Review a Potentially Dangerous Condition at the United Illuminating Company's Bridgeport Harbor Station Unit 3, p. 14 (deferring proceedings regarding the financial consequences of potentially imprudent management).

The instant investigation, conducted as a contested proceeding, provides an optimal forum for thoroughly examining the EDCs' actions and reaching specific conclusions as to whether the EDCs prepared for and responded to Tropical Storm Isaias consistent with their statutory duty to operate prudently, efficiently, and with care for public safety. The absence of complete storm cost data does not justify or warrant deferring prudency determinations until a future cost recovery proceeding. The Authority notified Parties from the outset of this proceeding that its review would "encompass determinations on the prudency and reasonableness of the EDCs' storm preparation, response, and recovery activities." Revised Notice of Proceeding, August 14, 2020, p. 1. Consequently, delaying such determinations would violate the principle of administrative efficiency and constitute an abdication of the Authority's statutory responsibility to properly and timely regulate public service companies in the critical area of storm response.

Procedurally and substantively, the utility has the burden of proving that its performance satisfied the prudency standard. The General Assembly has placed squarely on regulated utilities the burden of demonstrating that a utility's costs and associated rates are reasonable and prudent. See, Conn. Gen. § 16-22 ("At any hearing involving a rate . . . of a public service company, the burden of proving that said rate under consideration is just and reasonable . . . shall be on the public service company."). Moreover, this burden of proof is applicable not just to rates, but to the utility's actions giving rise to such costs and rates. Rates are mathematical determinations and, in isolation, are neither prudent nor imprudent. It is the strategy, decisions, management, and execution by the utilities, which become manifest through rates, that are subject to the prudency standard. See, Decision, March 20, 1991, Docket No. 89-12-05, Re Southern New England Telephone Company (finding "that the Company has satisfied its burden of proof relative to its [financial] forecasts."); Connecticut Light & Power Co. v. Dep't of Pub. Util. Control, No. CV 920703777, 1993 WL 512427, p. *7 (Conn. Super. Ct. Dec. 2, 1993) (citing the utility's burden of proof and

affirming the finding that the utility "was guilty of specific acts or omissions of imprudence that caused damage and prolonged the plant shutdown.").[12]

Particularly with respect to storm preparation and response, the utility retains the vast majority of information and documentation related to the prudency of its actions. Therefore, the imposition of the burden of proof on the utility to demonstrate prudency promotes a policy of transparency and accountability essential for monopoly utility regulation.[13]

D. ALIGNMENT OF PERFORMANCE AND FINANCIAL INCENTIVES

In addition to potential penalties under Conn. Gen. Stat. § 16-32i and evaluating the prudence of EDC management actions and decisions, the Authority also retains the regulatory tool of adjusting a public service company's ROE to properly incentivize prospective prudent and efficient performance. The Authority, as the economic regulator, acts as a counterpoint to the monopoly power granted to public service companies. In unregulated sectors of the economy, competitive forces driven by customers that can switch providers give signals and incentives for future performance. However, the customers of Connecticut's EDCs do not have the ability to switch providers for electric distribution services. Rather, in the absence of competitive forces and customer choice, the motivation for the EDCs to act prudently, efficiently, and in the public interest in the future depends upon the Authority's ability to properly align the EDCs' performance with financial incentives.

Consistent with past storm response reviews, the Authority considers ROE reductions to be distinguishable from civil penalties or cost disallowances. However, a ROE reduction can be precipitated by specific determinations of imprudence or by a generally deficient storm response. See, e.g., Decision, June 30, 2009, Docket No. 08-12-06, Application of Connecticut Natural Gas Corporation for a Rate Increase, pp. 94–95 and fn. 14 (ordering a 10 basis point reduction in ROE for imprudent management of billing);[14] Decision, December 17, 2014, Docket No. 14-05-06, Application by The Connecticut Light and Power Company to Amend Rate Schedules, p. 149-152

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[12] Holding that the General Assembly imposed on public service companies the burden of proof for costs and rates but not for the public service companies' actions that create such costs and rates would be "absurd or unworkable" and, as such, would be inconsistent with Conn. Gen. Stat. § 1-2z, the "plain meaning rule".

[13] Similar to Eversource's derivation of its "hindsight prohibition" element above, Eversource devises a new burden-shift approach for a prudency review by which, "once [Eversource] has made the prima facie showing of prudence, the burden is shifted to the [Authority] to determine whether evidence submitted by other parties . . . supports disallowance of costs . . . ." Written Exceptions, p. 112. Counsel for Eversource acknowledged at oral argument that there exists no statute, regulation, binding caselaw, or even Authority precedent in support of a burden shift. Because this proposal represents a stark departure from Conn. Gen. Stat. § 16-22 and is not ripe for review in this investigative proceeding, the Authority declines to consider this approach to the disallowance of costs.

[14] ROE reductions imposed by the Authority have been upheld on appeal. See, e.g., Conn. Natural Gas Corp. v. Conn. Dep't of Pub. Util. Control, No. CV094021664S, 2010 Conn. Super. LEXIS 19, 17 (January 6, 2010) (affirming a 10 basis point ROE reduction due to imprudent management).

(imposing a 15 basis point reduction in ROE for a "deficient and inadequate" response to the 2011 Storms rather than for specific imprudent acts).[15]

Notably, although an imprudence determination may be the basis for an ROE reduction, it is not a prerequisite. Id., pp. 149-50 and fn. 34 (noting that "prudence is not at issue" and imposing the ROE reduction for "determinations based on the factors listed in Conn. Gen. Stat. §16-19e(a)(3) and (5)"). The Authority adopts this analysis for noncompliance with performance standards under Conn. Gen. Stat. § 16-32i. A finding that an EDC failed to comply with a performance standard may provide a basis for an ROE reduction; however, it is not a precondition. As such, an ROE reduction for storm performance may come from a finding of imprudence, a failure to comply with established performance standards, or a determination of poor or deficient management based on factors enumerated in Conn. Gen. Stat. §16-19e(a).

Under Conn. Gen. Stat. §16-19e(a), the Authority is charged with examining and regulating the operations and internal workings of public service companies in accordance with the following principles: "(3) . . . all public service companies shall perform all of their respective public responsibilities with economy, efficiency and care for public safety and energy security; (4) . . . rates be sufficient . . . to allow public service companies to . . . provide appropriate protection to the relevant public interests, both existing and foreseeable . . . and; (5) that the level and structure of rates charged customers reflect prudent and efficient management of the franchise operation; . . ."

ROE reductions are an essential tool in fulfilling this statutory obligation. Through ROE reductions, the Authority can align a utility's operational performance with its financial performance. Financial incentives tied to performance encourage the regulated entity to cure management deficiencies and operational inefficiencies. Although cost disallowances can provide protection against unjust rates, and civil penalties can deter certain behavior, ROE adjustments provide a prospective mechanism for the protection of the "public interests, both existing and foreseeable." Id.

ROE adjustments ensure that rates reflect prudent and efficient management and incentivize the performance of public responsibilities with economy, efficiency and care for public safety and energy security. Conn. Gen. Stat. §16-19e(a)(3) and (5).

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[15] The ROE reduction in the 2014 Eversource Rate Case Decision was the result of the Authority establishing a "rebuttable presumption" of an ROE reduction in Docket No. 11-09-09, PURA Investigation of Public Service Companies' Response to 2011 Storms. Unlike this proceeding, the investigation in Docket No. 11-09-09 was an uncontested proceeding and was not noticed pursuant to the Authority's ratemaking powers codified under Conn. Gen. Stat. §§ 16-19 and 16-19e.

III. BACKGROUND AND DEVELOPMENT OF STANDARDS OF ACCEPTABLE PERFORMANCE

The subsequent sections detail the development and evolution of the standards of acceptable performance against which the EDCs' performance with respect to Tropical Storm Isaias must be judged under Conn. Gen. Stat. § 16-32i. Additionally, in accord with the Notices of Admitted Evidence, the Authority's stated framework for review also included decisions from previous dockets, legislative reports, and the State of Connecticut Response Framework ("SRF"), among other documents. See, Notice of Admitted Evidence (Nov. 30, 2020); Notice of Admitted Evidence (Dec. 11, 2020).

A. 2011 STORMS

In 2011, the Authority initiated a proceeding to investigate the preparedness, service response, and communications of Eversource and UI following the service outages attributable to Tropical Storm Irene and the October Nor'easter (2011 Storms). Decision, August 1, 2012, Docket No. 11-09-09, PURA Investigation of Public Service Companies' Response to 2011 Storms (2011 Storms Decision).

As a result of the investigation, the Authority found that Eversource's performance in the aftermath of the 2011 Storms was deficient in the areas of: outage and service restoration; preparation of personnel; support of its municipal liaison program; development and communication of restoration times to customers; and overall communication to customers, other service providers, and municipalities. 2011 Storms Decision, p. 1. Specifically, Eversource failed to obtain adequate assistance in advance of the October Nor'easter and thus failed to adequately fulfill its duties to provide for the overall public interest. Id. The Authority, therefore, required Eversource to develop a heightened state of readiness to ensure that necessary line workers are available during the first 48 hours of a major storm event (i.e. Event Level 5 or greater) to assist in efforts to ensure public safety. Id.

Specifically, the Authority issued Order No. 2, stating:

> CL&P shall formulate a plan to establish a heightened state of readiness in anticipation of a major storm. Not later than July 1 of each year, CL&P shall report on its plan to establish the line worker resources that would be available to it in anticipation of a major storm during the upcoming July 1 through March 31 time period, including its own lineworkers, lineworkers from sister companies and contractors. In this report, CL&P shall both state the lineworker resources likely available during a storm primarily affecting only Connecticut and a regionwide storm. CL&P shall also state the mutual assistance organizations to which it belongs, and state the likely resources those organizations are capable to deliver to CL&P to assist in storm recovery. CL&P shall place primary emphasis on demonstrating a lineworker workforce that would likely be available to CL&P during the first 48 hours of a regional event, so that it is able to establish a heightened state of readiness. Due to the timing of this Decision, the first report is due no later than October 1, 2012.

2011 Storms Decision, p. 116.

The Authority also found that there were deficiencies in Eversource's execution of its municipal liaison program during the 2011 Storms. Id., p. 35. Moreover, critical facility restorations, efforts to timely address municipal priorities, the establishment of relationships with municipal partners, and the provision of accurate restoration status information all were found deficient by the Authority and in need of improvement. Id., pp. 34 and 35.

The Authority also evaluated the performance of UI in the 2011 Storms and found no deficiencies. Id., pp. 53-71. However, the Authority noted some areas in need of improvement by UI, including: expanding access to mutual aid resources; improving municipal liaison programs and Make Safe work; and increasing the level of vegetation management. Id., p. 56.

B. 2012 PERFORMANCE STANDARDS

As directed by Conn. Gen. Stat. § 16-32h, the Authority established and adopted standards for acceptable performance applicable to the EDCs for emergencies. Decision, November 1, 2012, Docket No. 12-06-09, PURA Establishment of Performance Standards for Electric and Gas Companies (Performance Standards Decision), p. 4 and Appendix A. The Performance Standards Decision required that the EDCs incorporate the standards delineated in that decision into their emergency response plans (ERPs) filed biennially with the Authority pursuant to Conn. Gen. Stat 16-32e(b). Id., Appendix A, pp. 2 and 8. The Performance Standards Decision further required that the EDCs follow their ERPs in response and recovery activities related to emergencies. Id., Appendix A, p. 8. Thus, the EDCs' ERPs constitute the main set of established standards for acceptable performance. The overriding purpose of the standards, and thus the ERPs, is to:

> [E]nsure that the electric distribution companies (EDCs) are prepared for emergencies and disasters in order to minimize damage and inconvenience to the public which may occur as a result of electric system failures, major outages, or hazards posed by damage to electric distribution facilities....[The ERP] will help ensure that an EDC's performance of its responsibilities in the ERP, in conjunction with responsibilities and work performed by State agencies, municipalities, other utility companies and the citizens of Connecticut, can collectively help effectuate the State's overriding goal to protect life and property during an emergency or major outage.
>
> Performance Standards Decision, Appendix A, p. 2.

The Performance Standards Decision establishes an EDC's ERP as its primary set of acceptable performance standards:

> Each EDC shall restore service to its customers in a safe and reasonable manner during all service interruptions and outages. During an Emergency Event, this shall include at a minimum implementing all applicable components of a utility's ERP related to restoration of service.
>
> Performance Standard Decision, Appendix A, p. 8.

In addition to establishing a company's ERP as the primary compilation of acceptable performance standards, the Authority delineated additional standards with which the EDCs must comply. Notably, such standards include:

- **Performance Standard 2.a. Emergency Response Plan.** EDC will develop, implement, maintain and utilize an ERP so that the EDC is adequately and sufficiently prepared to restore service to its customers in a safe and reasonably prompt manner during an Emergency Event.
- **Performance Standard 2.a.vi. Mutual Assistance**. Mutual assistance shall be requested when the EDC reasonably believes that local resources are inadequate to assure timely restoration of service or public safety, or if mutual assistance would substantially improve restoration times or mitigate safety hazards....[and the] ERP must stipulate at what level of outage or anticipated outage level the EDC will request mutual assistance, taking into account travel times from remote resources, so as to ensure sufficient resources to rapidly and efficiently provide restoration.
- **Performance Standard 2.b.ii. Local Agencies**. Each EDC shall establish written communication protocols for timely and accurate information exchange between the EDC and any pre-determined local agency such as public safety officials and agencies, local elected officials, and others the EDC deems appropriate during Emergency Events impacting multiple jurisdictions.
- **Performance Standards 2.c.ii. Large-scale/Regional Exercises.** Every three calendar years, each EDC shall conduct or participate in a comprehensive emergency exercise to test and evaluate major components of its plan. Large Scale exercises should include, among other things, the highest level event covered in the ERP, for example, a Level 4 event, with up to 70% of its customers suffering an extended outage.

Performance Standard Decision, Appendix, pp. 2 – 8.

C. NORTHEAST UTILITIES MERGER SETTLEMENT AGREEMENT

By Decision dated April 2, 2012, in Docket No. 12-01-07, Application for Approval of Holding Company Transaction Involving Northeast Utilities and NSTAR (Merger Decision), the Authority approved the merger of Northeast Utilities and NSTAR. The approval was granted by the Authority after it found that the merger was in the public interest, subject to the terms of a settlement agreement reached in that proceeding. Merger Decision, pp. 47 and 48. The settlement agreement had two provisions related to future Eversource storm responsibilities and standards.

First, that Eversource committed to maintain parity of service for storm response between Connecticut and Massachusetts. Id., p. 11. Second, that Eversource committed to improve both non-storm and storm-related service quality performance. Id.

Regarding parity of service, paragraph 4.2 of the settlement agreement stated:

> NU shall commit to maintain parity of service to each state within its service territory, such that allocation of resources for restoration efforts following major storms shall be made fairly and equitably based on operational needs, system requirements and relative number of outages.
>
> Merger Decision, Settlement Agreement, p. 5.

Regarding improved storm-related service quality, section 4.4 of the settlement agreement stated:

> CL&P and Yankee Gas shall commit to improve non-storm and storm-related service quality performance. Failure to at least maintain service quality performance consistent with historical averages over the last 10 years shall subject the companies to such penalties as may be within the Authority's jurisdiction and as may be imposed by the Authority from time to time for failure to maintain service quality.
>
> Id., Settlement Agreement, p. 6.

Based on the foregoing provisions, the Authority found that the settlement agreement was in the public interest. Id., p. 12.

D. 2012 SUPERSTORM SANDY

By Decision dated August 21, 2013, in Docket No. 12-11-07, PURA Investigation into the Performance of Connecticut's Electric Distribution Companies and Gas Companies in Restoring Service Following Storm Sandy (Storm Sandy Decision), the Authority found that both Eversource and UI performed adequately in their respective storm preparedness and response activities during the 2012 superstorm. Storm Sandy Decision, p. 1. Nonetheless, the Authority directed the EDCs to make certain improvements to storm activities, including studying the accuracy of estimated restoration time figures. Id., p. 55.

E. STATE RESPONSE FRAMEWORK AND EMERGENCY SUPPORT FUNCTION 12

Public service companies,[16] including UI and Eversource, also have specific obligations with respect to civil preparedness and emergency response. The Department of Emergency Services and Public Protection (DESPP) developed the Connecticut State Response Framework (SRF) in accordance with Conn. Gen. Stat. § 28-5b, which states:

> The commissioner [of DESPP] shall direct the preparation of a comprehensive plan and program for the civil preparedness of the state and integrate and coordinate that plan and program to the fullest extent possible with the civil preparedness plans of the federal government and of other states. When the plan and program has been prepared, the commissioner shall present it to the Governor for his or her approval. When the Governor approves the plan, all government agencies, state or local, all civil preparedness forces in the state and *all public service companies*, as defined in section 16-1, shall carry out the duties and functions assigned by the plan and program as approved. (emphasis added).

The SRF establishes the framework for the interaction of state government with local, federal, and tribal governments, non-governmental response organizations and other private sector partners, the media, and the public during emergency preparedness, response, and recovery functions that require a statewide response effort. SRF, p. 1-1. The purpose is to establish a process to support local governments and their residents in response to disasters and emergencies. Id.

The SRF includes the All Hazards Energy and Utilities Annex Emergency Support Function 12 (ESF-12 Annex). SRF, pp. 3-25 and A-5. The Emergency Support Function (ESF) -12 focuses on coordination with public utilities for Make Safe activities and the repair and restoration of energy infrastructure. Id. The ESF-12 Annex was developed by DESPP's Division of Emergency Management and Homeland Security (DEMHS) under the direction of Governor Dannel Malloy following the two severe weather emergencies in 2011, which caused widespread and prolonged power outages. ESF-12 Annex, p. 5. The purpose of the ESF-12 Annex is to formalize the operational processes used to coordinate utility-related responses to emergencies and to facilitate restoration of utility services. Id.

The ESF-12 Annex contemplates certain preparedness, response, and recovery actions by different members. Id., p. 10. The ESF-12 Annex defines certain roles and responsibilities for the EDCs. These include, *inter alia*, preparedness responsibilities

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[16] Conn. Gen. Stat. § 16-1 defines a "public service company" as including "electric distribution, gas, telephone, pipeline, sewage, water and community antenna television companies and holders of a certificate of cable franchise authority, owning, leasing, maintaining, operating, managing or controlling plants or parts of plants or equipment, but shall not include towns, cities, boroughs, any municipal corporation or department thereof, whether separately incorporated or not, a private power producer, as defined in section 16-243b, or an exempt wholesale generator, as defined in 15 USC 79z-5a."

such as: maintaining an ERP, participating in emergency exercises, establishing a communication/coordination process with state and local officials, and conducting training of municipal and state liaisons, among others. Id., p. 19. The ESF-12 Annex also includes a number of response standards, such as: establishing response and restoration priorities, defining communication requirements, and establishing a general framework for coordinating with state and local officials. Id., pp. 20-23.

In addition, the ESF-12 Annex establishes the Make Safe Protocol for Clearing Blocked Roads (Make Safe or Protocol), which provides instructions for the EDCs, state agencies, and municipalities with respect to the clearing of blocked roads for emergency vehicle access following an emergency event. ESF-12 Annex, p. 35. The Protocol establishes a process for identifying, prioritizing, and coordinating the clearing of blocked roads and other hazards to allow for emergency access. Id.

Importantly, Eversource and UI are statutorily required to "carry out the duties and functions assigned by the [SRF] plan and program as approved [by the Governor]." Conn. Gen. Stat. § 28-5b. The specific preparedness, response, and restoration standards, including the Make Safe protocol, are discussed in more detail in the relevant sections below.

F. 2014 EVERSOURCE RATE CASE

In Eversource's rate case subsequent to the 2011 Storms, the Authority found that Eversource's preparation for and response to the 2011 Storms was inadequate and deficient. Decision, December 17, 2014, Docket No. 14-05-06, Application by The Connecticut Light and Power Company to Amend Rate Schedules (2014 Eversource Rate Case Decision), p. 151. Consequently, the Authority imposed a financial penalty on Eversource's ROE as a means of incentivizing the company to improve its performance and ability to prepare and respond to future storms. Id., p. 152.[17]

In the 2014 Eversource Rate Case Decision, the Authority evaluated the information and findings compiled in the 2011 Storms Decision and specifically found that Eversource was imprudent in its 2011 Storms preparation and response in the following areas:

1. Eversource inadequately prepared for major storms, and failed to exercise or drill its emergency response plans and evaluate the results for at least five years prior to the storms;
2. Eversource failed to request the assistance of outside crews in a timely manner and failed to reasonably manage the crews that arrived;

[17] The Authority deferred the assessment of financial penalties for the 2011 storms until the 2014 Eversource Rate Case Decision because the Authority had limited the scope of the 2011 storm investigation (and notice thereof) to identifying deficiencies and imposing corrective measures. 2011 Storms Decision, pp. 15-16. As noted above, the Authority did not similarly limit the scope of this proceeding. See, Notice of Proceeding, p. 1.

3. Eversource engaged in an unreasonable damage assessment process, including failure to transmit assessment information from the field to operations headquarters efficiently;
4. Eversource failed to train and support municipal liaisons and defer to local restoration priorities;
5. Eversource failed to reasonably develop estimated restoration times; and
6. Eversource failed to reasonably manage communications with the public and public officials concerning restoration times.

Id., p. 150.

In addition to these specific findings of imprudence, the Authority further found a multitude of other deficiencies with respect to Eversource's storm response, including that Eversource did not seek or obtain outside restoration crews in a timely manner. Id., 150. Other findings of deficiency included that municipal liaisons were poorly prepared, poorly supported, and ineffective. Id., pp. 150-151. The Authority found that the failure of the municipal liaison program, as well as the delay in restoration for many customers, caused the towns to incur significant additional costs. Id., p. 151. Eversource's management deficiencies with respect to the October Nor'easter turned extended power outages into crises, caused significant public anxiety and severely impacted residents' and towns' abilities to deal effectively with the outages. Id., p. 151.

Beyond imposing penalties, the 2014 Eversource Rate Case decision implemented other actions designed to incent improved storm preparation and response efforts moving forward, including the approval of funding through a storm reserve in rates designed specifically to fund pre-staging activities, such as acquiring outside line crews in advance of storms. Id., p. 92. In support of this approval, the Authority reiterated the findings from the 2011 Storm Decision. The Authority made clear that Eversource should place higher priority on taking aggressive action in anticipation of uncertain but major weather events, including pre-staging resources and making earlier attempts to acquire resources so that such resources are available within the first 48 hours following an emergency event. Id. The Decision also cited Eversource's proper acquisition of supplemental crews in advance of Superstorm Sandy as an example of an appropriate application of such guidance. Id.

The Authority's 2014 Eversource Rate Case decision further outlined how pre-staging and pre-acquisition of supplemental crews is crucial for both outage restoration and public safety. Id. The Authority stressed the importance of erring on the side of caution in the face of unknown catastrophic storms. Id. Accordingly, the Authority approved funding in Eversource's base distribution rates of $2 million annually to create a pre-staging reserve, for the specific purpose of funding storm preparation activities for emergencies that do not actually materialize, as a way to further incent appropriate precautions. Id. In Eversource's 2018 rate case settlement, the pre-staging reserve fund was increased to $3 million annually, which was in effect for both calendar years 2019 and 2020.[18]

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[18] See, Decision, April 18, 2018, Docket No. 17-10-46, Application of The Connecticut Light and Power Company d/b/a Eversource Energy to Amend its Rate Schedules, Appendix A, Attachment 3.

G. UI 2016 RATE CASE

Similarly, the Authority encouraged UI to adequately prepare in advance for severe storms. In UI's most recent rate case, the Authority approved UI's recovery of "lean-in" costs for major storm pre-staging activities through rates. Decision, December 14, 2016, Docket No. 16-06-04, Application of The United Illuminating Company to Increase its Rates and Charges, p. 110. The recovery mechanism for UI is different than Eversource's, as the lean-in costs are recovered as one item within a general catastrophic storm reserve. Id., pp. 111-112. The total reserve is collected as an expense item at the rate of $2 million annually, the balance of which can carry-over across years. Id.

H. OCTOBER 2017 STORM

The Authority investigated Eversource's performance with respect to a severe storm on October 30, 2017, in Docket No. 16-12-37, PURA Review of Electric Companies' and Electric Distribution Companies' Plans for Maintenance of Transmission and Distribution Overhead and Underground Lines. In that proceeding, the Authority concluded that Eversource's response to the storm was, on the whole, acceptable. Letter to the Energy and Technology Committee of the Connecticut General Assembly, March 15, 2018, p. 2 (2017 Storm Letter). The Authority noted, however, that Eversource initially under-predicted the severity of the event. Id. The Authority also highlighted three areas of concern with respect to the company's communications systems:

1. Disruptions to customer digital and Interactive Voice Response (IVR) outage reporting channels;
2. Intermittent disruptions to Priority 2 and 3 Fire, Police, and Safety (FPS) calls; and
3. Erroneous outage restoration alerts being sent to customers due to undetected nested outages.

2017 Storm Letter, pp. 3-6.

In the 2017 Storm Letter, the Authority identified the critical role that communications systems play for the community during emergency events. Id., p. 7. Accordingly, the Authority required that Eversource: (1) perform additional testing and monitoring of its digital and IVR reporting channels; (2) develop a solution to FPS congestion issues; and (3) correct the nested outage scenarios sending erroneous restoration notifications to customers. Id.

IV. AUTHORITY ANALYSIS

A. STORM MONITORING AND INITIAL EVENT DECLARATION

1. Standards of Acceptable Performance

A utility's initial responsibility in preparing for an emergency[19] event is to track and monitor the incoming storm, synthesize information and data from available sources, and render and update its event level declaration. The utility must reasonably comply with established performance standards and also must act prudently in making determinations on the information that is known or should have been known to the utility.

The Performance Standards Decision provides specific "escalation levels" that are required to be incorporated into each EDC's ERP. Performance Standards Decision, Appendix A, p. 3. The escalation levels (designated Levels 1 - 5) define actions and trigger points based on the anticipated extent of customer outages.[20] Eversource's and UI's Event Level Matrices are presented below, respectively.

Table 1. Eversource Event Level Classification

Event Type	Typical Number of Customers Out at Peak	Typical Number of Trouble Spots	Weather Type	Typical Line Resource Strategy	Typical Restoration Duration	Typical Global ETR Availability Timeframe	Typical Damage Assessment and Typical Restoration Strategy
5	0% - 9% (<125K)	< 2,000	Warm Weather	200-300	1-3 Days	<24 hours	Event/Hybrid
			Cold Weather	250-350			
4	10% - 29% (125K – 380K)	1,500 – 10,000	Warm Weather	250-800	2-6 Days	<36 hours	Event/Hybrid/Circuit
			Cold Weather	300-1000			
3	30% - 49% (375K – 650K)	8,000 – 25,000	Warm Weather	750-1250	5-10 Days	<48 hours	Hybrid/Circuit
			Cold Weather	800-1500			
2	50% - 69% (625K – 870K)	15,000 – 48,000	Warm Weather	1000-1800	8-21 Days	<48 hours	Hybrid/Circuit
			Cold Weather	1250-2000			
1	70% - 100% (>870K)	>35,000	Warm Weather	>1500	> 18 Days	<48 hours	Circuit
			Cold Weather	>1750			

Eversource ERP, p. 16.

[19] Conn. Gen. Stat. § 16-32e(a) defines Emergency as any, "(1) hurricane, tornado, storm, flood, high water, wind-driven water, tidal wave, tsunami, earthquake, volcanic eruption, landslide, mudslide, snowstorm, drought or fire explosion, . . ."

[20] By Decision dated July 29, 2015, in Docket No. 12-06-09RE01, PURA Establishment of Industry Performance Standards for Electric and Gas Companies – Escalation Level Matrices Revisions, the Authority approved the reordering of the escalation level matrices established in the Performance Standards Decision for consistency with the Federal Emergency Management Agency National Incident Management System Incident Complexity Matrix (NIMS ICM), in which Level 1 is the most severe event.

Table 2. UI Event Level Classification

PARAMETER	EVENT LEVEL CLASSIFICATION							
	5 MINOR	5 MODERATE	5	4	3	2	1A	1
CUSTOMER OUTAGES	≤5,000	>5,000 – ≤10,000	>10,000 – <31,356	≥31,356 – <95,799	≥95,800 – ≤159,967	>159,967- ≤223,549	>223,549– 287,421	>287,421
PERCENT OF CUSTOMERS AFFECTED	Up to 1.5%	≥1.5% – <3%	≥ 3% – <10%	≥10% – <30%	≥30% – <50%	≥50% – <70%	≥70% – <90%	≥90% – <100%
FEEDER/ CIRCUIT LOCKOUTS	–	Up to 5	>5	>10	>25	>50	>100	>200
OMS OUTAGE ORDERS	–	≥25 – <50	≥50 – <75	≥75 – <400	≥400 – <1,000	≥1,000 – <2,000	≥2,000 – <3,000	≥3,000
TROUBLE ORDERS (PARTIAL SERVICE/ NON-OUTAGE ORDERS)	–	≥50	≥75 – <100	≥100 – <500	≥500 – <1,000	≥500 – <1,000	≥1,000 – <2,500	≥2,500
WIRE DOWN ORDERS	–	≥25	≥50 – <75	≥75 – <100	≥100 – <250	≥250 – <700	≥700 – <1,500	≥1,500
GLOBAL ESTIMATED RESTORATION TIME	<12 hrs.	≥12 hrs. – <24 hrs.	≥24 hrs. – <48 hrs.	>2 days – <5 days	≥5 days – <7 days	≥7 days – <9 days	≥9 days – <14 days	≥14 days
SUBSTATION PROBLEMS	–	1	1	2	3	≥4 – <10	≥10 – <14	≥14

UI ERP, p. 45.

Weather is the primary driver from which all event level decisions are made. Tr. 12/16/20, p. 608; Tr. 12/21/20, p. 979. The specific weather factors that go into the decision-making process include wind speed, wind direction, and geographic coverage, as well as the likelihood of those factors. Tr. 12/21/20, pp. 980-981; Tr. 12/16/20, pp. 608-610. Other weather-related factors include rainfall for flooding concerns, and ground and leaf saturation to assess tree failure. Id. Additional relevant factors include the potential for the event to affect the entire east coast, which would limit the availability of mutual aid crews. Tr. 12/21/20, p. 981.

The purpose of the escalation classification in the ERPs is to ensure that:

1. The decision to activate the EDC's Emergency Operations Center (EOC) follows a consistent level of emergency;
2. Damage Assessment (DA) is expanded and enhanced in response to a pre-determined level of customer outages;
3. Estimated Restoration Times/Estimated Time to Restore (ETR) are suitably tailored, whether automated or manually-provided, to the level of outage and the accuracy of the data. This is especially critical for automated feeds to local or cloud-based Interactive Voice Response (IVR) facilities;
4. Staging areas for food, fuel, materials, field work force, and lodging and other decentralization efforts are optimized according to the level of outage; and

5. Adequate staffing is designated for communications during the Emergency Event, in particular assignment of staff to specific stakeholder categories, such as media, local officials, customers, etc.

Performance Standards Decision, Appendix A, p. 3.

The Authority has repeatedly stressed the importance of erring on the side of caution in the face of unknown catastrophic storms, and indeed has provided regulatory certainty to encourage such behavior.[21] The Eversource ERP further memorializes the standard that major storm response planning is to err on the side of declaring a higher event level (i.e., more customer outages) in the face of uncertainty, such as when best estimates place the forthcoming emergency in between two event levels. Eversource ERP, p. 18. Consistent with this recognition that the event level declaration guides the planning and operation of internal organizations, individual employees, and other stakeholders, Eversource instructs the incident commander to err on the side of declaring a higher event level when it is close, even to the point of declaring a higher level event if the criteria are not met. Id., p. 18. In accordance with Eversource's ERP, once an event level is declared by the incident commander, Eversource shares that information – as well as other information regarding event severity – with key stakeholders. Id., pp. 19-20. It is the responsibility of the incident commander to adjust the event level as the event is more clearly understood, or as conditions change. Id., p. 15; Tr. 12/21/20, pp. 987-989.

UI provides a more detailed set of classifications for different event levels than Eversource, including guidelines to corresponding event levels with weather predictors. UI ERP, pp. 46-48. UI's ERP also establishes guidelines for field resources other than just line crews, such as damage assessors, tree crews, and service crews. Id. UI recognizes the need to prepare for emergency events so that sufficient resources are available from the outset to meet restoration goals and respond to municipal priorities. Tr. 12/16/20, pp. 611-613 and 624-625. According to UI, this understanding came out of the 2011 and 2012 storms. Id., pp. 624-625.

Collectively, Eversource and UI both recognize that effective communications with external stakeholders, such as regulatory agencies, state agencies, municipalities, and customers, are essential to guide stakeholders in their respective preparations for, and responses to, emergencies. UI ERP, p. 12; Eversource ERP, p. 14. Indeed, Eversource establishes a principle that it will share timely, accurate and consistent information with all "communities" (i.e., stakeholders). Id., p. 13. Further, and specifically with respect to its Event Level Classification matrix, Eversource recognizes that its declaration of a particular event level is an important tool for both itself and stakeholders. Id., p. 15. Eversource recognizes that stakeholders rely on its classification to determine an appropriate course of action for emergency response. Id.

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[21] As discussed *supra* Section III.F. - G., both Eversource and UI are currently authorized to collect millions of dollars of ratepayer monies to fund a pre-staging storm reserve each year.

In short, the event level classifications are instrumental to guiding the planning and operation of resources across the EDCs and other stakeholders. As such, both the UI and Eversource ERPs establish that planning and preparedness decisions must account for travel time of external resources to ensure that sufficient numbers are brought to bear in a timely manner so that the utilities may fulfill their response and restoration obligations. Eversource ERP, p. 26; UI ERP, p. 12.

Additionally, as directed by the Authority, the event level classifications embedded within each EDC's ERP establish mutual assistance parameters and reflect the necessary outside resources (e.g., mutual aid and/or contractor) needed to restore customers within a prescribed time range. Performance Standards Decision, Appendix A, p. 4. Therefore, the declared event level classification should be used to assist the EDC in determining when internal resources are inadequate to assure restoration in a reasonable and timely manner and to protect the public in a reasonable and timely manner. Id.

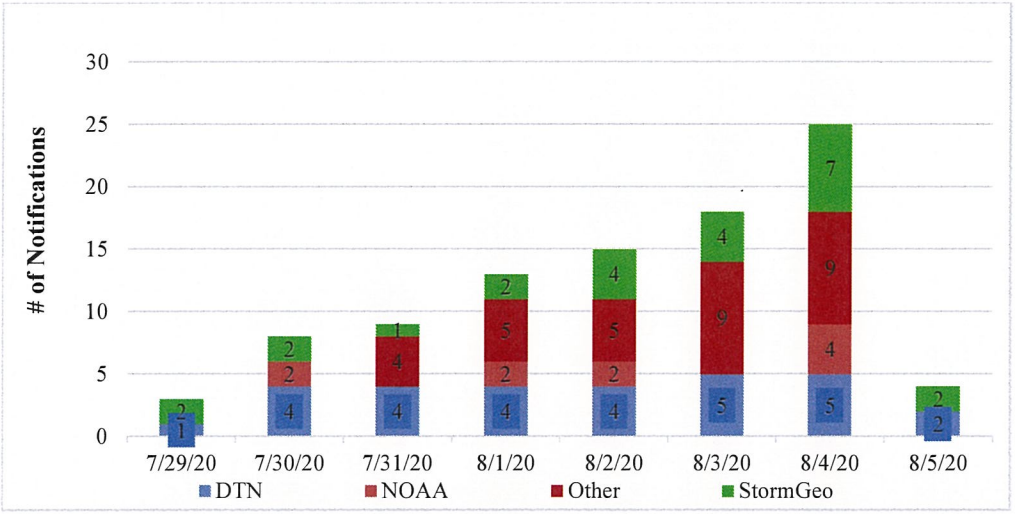
2. Eversource

With respect to its weather monitoring activities leading up to Tropical Storm Isaias, Eversource compiled and evaluated data and forecasts from a number of different weather information services. Entities contracted with or relied upon included DTN, StormGeo, the National Weather Service, UtiliWeather, and the University of Connecticut. Eversource Response to Interrogatory LCG-80. Utiliweather was founded by a former Eversource employee, Dominic Scerbo, who retired on July 31, 2020. Hallstrom, Hayhurst, Tobin, Scerbo Pre-Filed Testimony (PFT), October 23, 2020, p. 9. When with the company, Mr. Scerbo provided meteorological support to the company's operations and emergency preparedness organizations when needed, as well as functioning as a Senior Strategic Account Executive. Id.

The National Weather Service (NWS) is the primary source of weather data that commercial entities like DTN and StormGeo employ in their products and services, which are then customized by those entities. UI Response to Interrogatory LCG-78; Eversource 30-Day Event Report, p. 30. Eversource contracts with DTN and StormGeo to provide weather information and forecasts 24/7/365. Eversource Response to Interrogatory LCG-78. In addition, Eversource also sources data from the National Oceanic and Atmospheric Administration (NOAA), the National Hurricane Center (NHC), and from local media outlets and organizations. Id.

According to the company, Eversource received its first notification of the potential development of a tropical storm on July 26, 2020. Eversource Response to Interrogatory LCG-192, Attachment 1. Eversource began receiving daily Isaias forecasts beginning on Wednesday July 29, 2020. Eversource Response to Interrogatory AG-8, Attachments 1 through 4. Eversource received an increasing number of notifications from its forecasting services leading up to Tropical Storm Isaias' arrival on August 4, 2020. Id. The figure below shows the volume of notifications received by the company.

Figure 1. Number of Weather Notifications Received by Eversource



Eversource Response to Interrogatory AG-8, Attachments 1 through 4.

Despite the increasing volume of notifications leading up to the emergency event, Eversource's position is that the forecasts for the course and nature of the storm were highly variable in the days prior to reaching Connecticut and that all initial forecasts projected a storm with an easterly track, with a low-to-moderate probability for tropical force winds. Eversource Response to Interrogatory LCG-78. Eversource contends that only by late Sunday and into Monday did the storm forecasts shift to a more westerly path, and further alleges that the various forecasts only converged by the afternoon of Monday August 3, 2020. Id.

Notwithstanding the above assertions, Eversource concedes, that by Monday night, NHC was predicting a high probability of tropical storm winds in its service territory. Eversource 30-Day Event Report, pp. 31 and 32. Eversource also was aware by Monday afternoon that Connecticut was exposed to the eastern side of the storm track, and thus exposed to higher wind potential than eastern Massachusetts. Id. Eversource received weather alerts from the State Department of Emergency Management and Homeland Security (DEMHS) indicating the potential for Tropical Storm conditions in Connecticut as early as July 31, 2020. Eversource Response to Interrogatory AG-8, Attachment 1, p. 89. Indeed, by 5:00 p.m. on August 2, 2020, DEMHS issued a weather alert noting that Isaias was gaining strength and taking a more westerly direction as compared to earlier predictions, and that tropical storm conditions were to be expected. Eversource Response to Interrogatory AG-8, Attachment 2, p. 151. Further, as of 2:00 a.m. on Sunday August 2, 2020, the NWS released guidance that there was a 5% to 30% chance of tropical storm force winds in western New England and that the highest probability of these tropical storm conditions was focused in southern New England. Id., p. 92.

Notably, in the days leading up to the event, one of Eversource's forecasting services, DTN, was reasonably accurate with its forecast of both the westerly track of the storm and the maximum wind gusts. By Saturday, August 1, 2020, DTN's forecast began to track westerly; in fact, DTN's forecast accurately captured Isaias' ultimate

track by August 3, 2020. Eversource Response to Interrogatory LCG-78, Attachment 1, p. 10. As shown below in Table 3 excerpted from DTN's storm report, the forecasted gusts increased steadily and were reasonably consistent with verified peak gusts (except for Southeast Connecticut (CT)). Id., p. 6.

Table 3. Forecasted Wind Gusts

Wind Gusts – Eversource Connecticut					
Zone	Forecast Max Gusts from 1pm 8/2/20	Forecast Max Gusts from 6am 8/3/20	Forecast Max Gusts from 1pm 8/3/20	Forecast Max Gusts from 6am 8/4/20	Verified Winds
	8/4	8/4	8/4	8/4	Peak gust
Northwest Hills	45 mph	50 mph	55 mph	55 mph	42 mph
Southwest CT	52 mph	55 mph	58 mph	70 mph	67 mph
Central	55 mph	57 mph	57 mph	60 mph	56 mph
Northeast Hills	48 mph	50 mph	52 mph	55 mph	52 mph
Southeast CT	60 mph	60 mph	60 mph	70 mph	54 mph

A further review of DTN's report indicates that, more significant than even the shift in the track of the storm, was the resultant change in wind direction. The shift in wind direction due to the storm's more western track had important consequences, including many uprooted trees and resulting damage. Eversource Response to Interrogatory LCG-78, Attachment 1, p. 13.

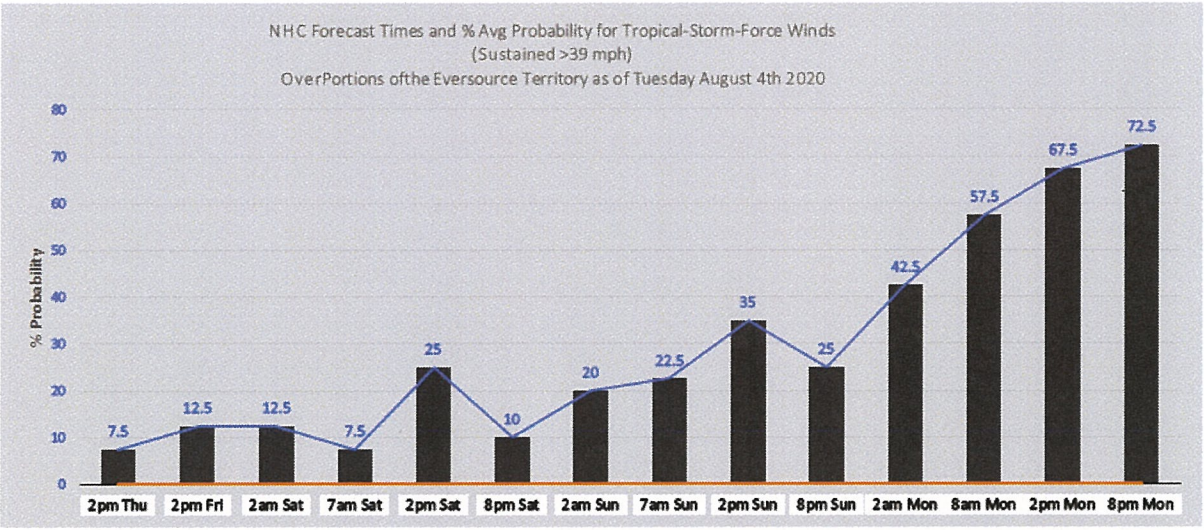
Eversource itself notes the significance of the wind direction:

> "Wind direction was a factor in the severity of the event because trees become "hardened" over the years to whatever the primary wind direction is for a given region…Connecticut was on the eastern side of the storm system, with 4 to 6 hours of strong, sustained windspeeds coming from the 180-degree opposite direction; that is, from the SE-SSE (averaged) direction causing significantly greater stress on the tree stock than would normally occur." (emphasis added)

Eversource 30-Day Event Report, p. 60.

A review of another forecasting service relied on by Eversource also contradicts the company's assertions. Eversource argued that all forecasts it received depicted low confidence of tropical storm force winds until Monday August 3, 2020. Eversource 30-Day Event Report, p. 31. In contrast, the forecasts received by the company from the NHC showed an overall increase in the likelihood of tropical storm force winds from Thursday, July 30, 2020 onwards, as evidenced by the below figure. Eversource Response to Interrogatory AG-33, Attachment 3, p. 2.

Figure 2. Forecasts by NWS of Probability for Tropical Storm Force Winds



Eversource 30-Day Event Report, p. 33.

While the likelihood of tropical storm force winds varied somewhat on Saturday and Sunday pre-storm, there was an overall increase in likelihood of tropical storm force winds as time went on. By Monday, August 3, 2020, at 2:00 a.m., NHC was calling for a 42.5% chance of tropical force winds. That percentage increased further to a 57.5% chance on Monday at 8:00 a.m., 67.5% at 2:00 p.m., and 72.5% by 8:00 p.m. that same day. Eversource Response to Interrogatory AG-33, Attachment 3, p. 2.

Nonetheless, relying on weather and other inputs received by Friday, July 31, 2020, Eversource declared an initial Event Level Classification Level 4, scheduled to be effective on August 4, 2020.[22] Response to Interrogatory AG-33, Attachment 3, p. 3. Notably, even as predictions converged regarding the severity of the event, Eversource did not escalate its Event Level Classification until after the occurrence of the emergency event.

Over the course of the emergency, Eversource made the following Event Level Declarations:

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[22] Eversource declares event levels prior to storm arrival based on inputs and an assessment of the broad dimensions of expected events and of potential damage and outage outcomes. Eversource Response to Interrogatory LCG-72. These dimensions include: the expected number of customers affected, the expected number of damage locations, and the expected number of crews to address the damage locations within the time frame anticipated for the event. Id. Importantly, the acquisition of necessary resources *follows* after this process and is continually assessed and refined as the storm approaches. Id. Eversource relies heavily on weather forecasts when making predictions about the expected number of customers affected, expected damage locations, and expected number of crews needed. Id. Eversource also considers the geographic extent of the event and its past experience and logistical considerations. Id.

Table 4. Eversource Event Declarations by Date and Time

Event Level	Date Declared	Declaration Effective	Declaration Announced Publicly in Preparedness Briefings
4	Friday July 31, 2020	7:00 a.m. August 4, 2020	6:15 p.m. August 4, 2020
3	Tuesday August 4, 2020	8:00 p.m. August 4, 2020	9:30 a.m. August 5, 2020
2	Wednesday August 5, 2020	7:00 p.m. August 5, 2020	9:15 a.m. August 6, 2020

Eversource Response to Interrogatory AG-33, Attachment 3, p. 3; Eversource Response to Interrogatory AG-17, Attachment 3, pp. 3-11.

As evidenced in Table 4 above, while Eversource initially declared an Event Level 4 four days prior to the predicted storm onset, the declaration was not timely communicated to external stakeholders. Eversource did not include this initial event level declaration in its public emergency preparedness briefing that it circulated to the Authority, DEMHS, and the municipalities on July 31, 2020. Response to Interrogatory AG-17, Attachment 3, pp. 1 and 2. For the first time, Eversource made the Event Level 4 declaration public in its emergency preparedness briefings at 6:15 p.m. on August 4, 2020, fewer than two hours before it changed its emergency declaration level internally to an Event Level 3. Id., p. 3. Eversource declared an Event Level 3 at 8:00 p.m. on August 4, 2020, but did not release this information in its public briefings until 9:30 a.m. on August 5, 2020, or 13.5 hours after the event escalation. Id., p. 5. Eversource yet again escalated its internal event level declaration from Event Level 3 to an Event Level 2 at 7:00 p.m. on Wednesday August 5, 2020. Eversource did not, however, include this information in its public emergency briefings until 9:15 a.m. on August 6, 2020, or 14 hours after it made the change internally. Id., p. 11.

3. UI

Similar to Eversource, UI maintains relationships with different forecasting entities to provide it with weather-related products and services. It uses two commercial entities, DTN and Atmos, which provide daily and long-range forecasts, as well as special updates when severe weather is expected. UI Response to Interrogatory LCG-78. Additionally, UI maintains a contractual relationship with Western Connecticut State University (WCSU) to provide service territory specific forecasts twice daily. Id. And, similar to Eversource, UI monitors the National Weather Service, the National Hurricane Center, and local media outlets. Id.

As discussed previously, DTN is a well-respected provider of weather services and offers many weather-related services that UI uses. UI Response to Interrogatory LCG-254. DTN provides UI long- and short-term forecasts, as well as more frequent updates when severe weather threatens; when requested, DTN representatives participate on Incident Management Team conference calls during pre-event planning. Id. Additionally, Atmos supplies weekly forecasts and alerts during severe weather

periods. Id. Further, WCSU provides three-day weather look-aheads tailored to UI's service territory, as well as a thunderstorm index used to predict the intensity of thunderstorms and a tidal forecast to help in the determination of whether coastal substations and other infrastructure will be affected by tidal surge. Id.

With respect to Tropical Storm Isaias, UI began monitoring the storm system on Monday, July 27, 2020. By Friday, July 31, 2020, UI indicated that the "weather forecasts started to converge on the intensity of the storm with the track of the storm continuing to shift west." UI Response to Interrogatory AG-38. The forecasts showed sustained winds of 25 to 40 mph with average gusts of 35 to 45 mph and peak wind gusts of 50 to 62 mph. Id.

According to company witnesses, a key component of classifying the appropriate Event Level in advance of storms is weather reports and wind speeds in particular. Tr. 12/16/20, p. 608. Unlike Eversource, UI's ERP contains a classification system that relates typical weather predictors such as wind speed and storm type to Event Levels. UI ERP, p. 46. The below table illustrates how wind speeds with foliage, and wind speeds from tropical storms, are typically associated with Event Levels.

Table 5. UI Event Levels by Weather Predictors

Weather Predictors	Event Level		
	5	4	3
Rain and Wind With Foliage			
Sustained Winds (mph)	35-45	45-50	40-50
Wind gusts (mph)	>50	>50	>60
Rain (in.)	>1	>1	>1
Tropical			
Sustained winds (mph)	-	-	39-49
Wind gusts (mph)	-	-	45-55
Rain (in.)	-	-	2 to 4

Id.

Based on the forecasts and information available to the company on Friday, July 31, 2020, UI declared an Event Level 3, indicating the likelihood of potential customer outages between 95,000 and 160,000 attributable to the emergency event. UI Response to Interrogatory AG-38. UI's initial designation was consistent with their ERP classification charts shown in Table 5 above, where predicted tropical storm sustained winds approach 50 mph, and wind gusts are predicted to be in the 40 to 50 mph range.

By 11:00 p.m. on Saturday August 1, 2020, UI recorded forecasts indicating that the storm track was shifting west, with the center of the track over New York City and western Connecticut; the revised forecasts indicated that UI's service territory would now likely fall in the upper right quadrant of the storm. UI 30-Day Storm Report, p. 6. This forecast called for relatively less rain than earlier reports, but stronger winds. Id. Prior to receipt of this forecast, UI had already declared an Event Level 3 on Friday July 31, 2020, as noted above. Id. UI stated that the forecasts received by the company on

Saturday, August 1, and on Sunday, August 2, 2020, confirmed to decision-makers that there was a necessity to prepare in advance for an Event Level 3. Tr. 12/16/20, pp. 611-613.

4. Analysis and Determination

After reviewing the information available to the EDCs in advance of the tropical storm, the Authority reaches certain findings with respect to the reasonableness and prudence of each EDC's initial storm monitoring and subsequent event level classification declarations. Put simply, the record demonstrates that Eversource knew or should have known that the forecasts for the intensity and track of Tropical Storm Isaias were increasingly indicative of tropical storm conditions. Further, *even if* its initial declaration of an Event Level 4 was undertaken reasonably, Eversource's subsequent failure to timely revise (and to timely publicize) its declaration was not. As a result, Eversource simply prepared for and reacted to the wrong storm while the real storm, Tropical Storm Isaias, was battering the State.

Based on initial forecasts, Eversource declared an Event Level 4 on Friday, July 31, 2020, roughly 96 hours before the storm was projected to impact Connecticut. Conversely, UI relied on sufficient weather information received by July 31, 2020, to consider the likelihood of a tropical storm great enough to support the declaration of an Event Level 3. Tr. 12/16/20, p. 613. Subsequent weather reports received on Saturday, August 1, and Sunday August 2, 2020, further confirmed UI's designation of an Event Level 3. Id.

Importantly, Eversource and UI received comparable information with initial forecasts, starting on July 31, 2020, predicting more rain, lower winds, and a storm that would track east of Connecticut. These preliminary reports contained initial forecasts that reflected some degree of uncertainty regarding the projected intensity and track of the storm. Eversource Response to Interrogatory AG-8, Attachment 1, pp. 42-44. Nonetheless, UI deemed it sufficient information to plan and prepare for an Event Level 3, which is consistent with the Authority's previous and oft-stated directives that the EDCs must undertake appropriate preparations even in the event of uncertain forecasts. Furthermore, there were credible indications that a tropical storm would impact Connecticut as reported by multiple outlets on July 31, 2020, including DEMHS advisories and others.

Moreover, the record demonstrates that starting on Saturday, August 1, and continuing through Tuesday, August 4, 2020, weather forecasts identified two trends: (1) an increasing probability of tropical storm force winds; and (2) a westward track inland and to the west of Connecticut. Eversource Response to Interrogatory AG-8, Attachment 2, pp. 22, 36, and 37. Forecasts also noted that the strongest winds and greatest potential for downed trees and tree limbs would be for areas on the eastern side of the storm. Id., p. 37. Simply stated, forecasts identified an increased likelihood of tropical storm conditions over Connecticut. These forecasts improved in confidence

over the weekend, notably increasing the likelihood for tropical storm conditions over the entire state of Connecticut starting in forecasts issued on Sunday, August 2, 2020.[23]

Eversource contends that the forecasts were uncertain on Saturday, August 1, 2020 and on Sunday, August 2, 2020, with the likelihoods for tropical storm conditions decreasing at two points over those days. Tr. 12/21/20, pp. 969 and 1069. However, the data shows that these temporary dips were part of an overall increasing probability of tropical storm conditions; even the second dip that occurred on Sunday evening, August 2, 2020, still called for a 25% chance for tropical storm force winds. Further, the NWS's predictions for a tropical storm event increased through Sunday, culminating to near certainty on Monday, August 3, 2020.

Eversource focuses exclusively on the uncertainty of the forecasts that it received on Saturday and Sunday, August 1 and 2, 2020. Tr. 12/21/20, pp. 969 and 981-983. Indeed, Eversource overlooks the sharp and consistently increasing probability predictions that it received by the early morning hours of Monday, August 3, 2020. By then, Eversource knew with relative certainty that the storm was on the more dangerous western track. Tr. 12/21/20, pp. 969-970. Indeed, Eversource knew by late August 2, 2020, and early August 3, 2020, that the storm track now centered on western Connecticut. Tr. 12/21/20, pp. 971-972. Further forecasts in the early morning of August 3, 2020, from the NWS northeast offices (New York, Albany, and Boston) were predicting tropical storm force winds for southern Connecticut, northern Connecticut, coastal Connecticut and western Connecticut. Eversource Response to Interrogatory AG-8, Attachment 3, pp. 13, 15, 16, 19, 41 and 42. NWS sent reports indicating greater than 50% likelihood of sustained tropical storm force winds both along coastal areas and inland, with the strongest winds occurring on eastern side of the storm. Id., p. 28. These same forecasts noted that the probability of seeing sustained tropical storm force winds was increasing. Id.

In the face of these weather predictions, Eversource chose not to escalate its event level classification above Event Level 4 at any point from Saturday, August 1, 2020 through Tuesday, August 4, 2020, when the storm landed in Connecticut. Not until the evening hours of Tuesday, August 4, *after* the storm had hit and widespread outages were reported, did Eversource finally escalate its declaration to an Event Level 3. More than 24 hours later, on the evening of Wednesday, August 5, 2020, Eversource again revised its declaration to an Event Level 2.

Based on prior Authority guidance and orders, a prudent utility would have modified its Event Level declaration and associated preparations on Saturday or Sunday, August 1 or August 2, given the increasing probability of tropical storm conditions and declining levels of uncertainty. By the early morning hours of Monday, August 3 – more than a full day before the storm hit – Eversource knew with reasonable certainty that Storm Isaias would unleash tropical storm force winds across all of Connecticut, necessitating at least an Event Level 3 declaration. The distinction between declaring an Event Level 4 and an Event Level 3 or greater has important ramifications for the subsequent storm response. Specifically, a key difference between

[23] See, *supra* Figure 2. Forecasts by NWS of Probability for Tropical Storm Force Winds.

an Event Level 4 and Event Levels 2 and 3 is that Event Levels 2/3 are characterized by widespread geographic weather impacts that are expected to result in systemwide damage. Eversource ERP, p. 17. As demonstrated above, Eversource had sufficient information available to reasonably know and anticipate that the center of the storm would occur over western Connecticut with high potential for systemwide damage. Therefore, at the very least, Eversource should have adjusted its initial event level classification from an Event Level 4 to an Event Level 3 no later than Monday, August 3. Eversource failed to do so.

By contrast, based on similar weather reports, UI took a more reasonably approach, consistent with both its ERP and the Authority's previous guidance, declaring an Event Level 3 and preparing accordingly four days ahead of the predicted storm impact. At least with respect to the event level declarations, UI's actions provide evidence of how a reasonable utility might have responded when confronting the same circumstances and in light of the performance standards established in the State.

Again, the Authority reiterates its long-standing position that prudent utility practice requires EDCs, in preparing for and responding to uncertain weather events, to make event level declarations that err on the side of more profound system impact so that the EDCs may appropriately secure the corresponding resources to provide both for public safety and timely restoration of services.[24] Eversource simply ignored this directive leading up to Tropical Storm Isaias, despite being financially incentivized to prepare.

Eversource's failure to properly and reasonably adjust its preparations resulted in the following consequences, which will be discussed in detail in later sections: (1) fewer line crews available and pre-staged before the storm and within 48 hours after the storm to respond to restoration and public safety events; (2) insufficient damage assessment personnel at the outset of the storm to identify storm damage and assist in other initial response actions; (3) inadequate preparation in the first 48 hours for the level and detail of communication to be received by customers and to be delivered to communities and their officials; and (4) lack of staffing to support municipalities in their public safety work regarding road clearing and communicating with residents.

Eversource claims to have been prepared for a high-side level Event Level 4 and low-side Event Level 3, but the Authority finds that there is no small difference between these event levels, especially for event levels of greater magnitude than a Level 4. Eversource 30-Day Event Report, p. 1. An Event Level 5 declaration typically involves a small number and short duration of outages, limited/no threat to public safety, and limited impact on the company's reputation. Eversource ERP, p. 17. An Event Level 4 may involve an appreciable and broad impact on outages to customers and critical facilities, and introduce a threat to public safety and a potential moderate impact on the company's reputation. Id. However, Event Levels 3 and 2 are recognized by the company as having a "significant impact" on customers, the environment, and public safety. Id. These events are anticipated to be system-wide, and to have significant adverse impact to public safety, a major customer impact, the need for outside

[24] See, e.g., 2011 Storms Decision; 2014 Eversource Rate Case Decision.

resources, and may also potentially involve critical reputation damage to the company. Id., pp. 17-18. In sum, there is a categorical difference between the level of preparation and response applicable to each event level.

Further, when Eversource did finally escalate its event level classification, it failed to share this information with external stakeholders in a timely or accurate manner. In its initial preparedness briefings released on Friday, July 31, 2020, Eversource did not include a predicted event level classification. Eversource Response to Interrogatory AG-17, Attachment 3, pp. 1 and 2. Eversource released no additional emergency briefings until 6:15 p.m. on August 4, 2020, at which time it released its classification for Tropical Storm Isaias as Event Level 4. Two hours later, Eversource internally changed its classification to Event Level 3, but did not share that information in its public briefings until nearly 14 hours later. Id., p. 5. This pattern repeated when Eversource escalated its event classification to Event Level 2 on the evening of August 5, 2020 and waited 14 hours to share this information in its emergency briefings.

The Authority has previously directed Eversource to establish these event level matrices to ensure that the EDC expands its overall emergency response activities and staffing levels, and works from a common framework that identifies restoration goals. Performance Standards Decision, Appendix A, p. 3. Communicating the scope and expected duration of a catastrophic outage event to stakeholders is imperative so that the State may realize its overarching goal to protect life and property during an emergency. Id., p. 2. For customers, town emergency officials, regulatory agencies, and other stakeholders, timely sharing of this minimum set of information is crucial to achieve that goal. The Authority finds that Eversource's communications regarding the event level classification were wholly deficient and deprived the public, government officials, and other stakeholders of critical information, clearly violating the applicable established performance standard.

In summary, based on the information Eversource had available prior to and during August 2, 2020, as outlined herein, the Authority concludes that Eversource did not reasonably comply with acceptable performance standards and was imprudent in its monitoring of Tropical Storm Isaias and in establishing and communicating its event level declarations.[25] Specifically, Eversource unreasonably and imprudently: (1) failed to appropriately classify the emergency event; (2) failed to update or revise its initial declaration notwithstanding the increasing certainty of a tropical storm level event; and (3) mismanaged its communications related to the storm event level classification with relevant stakeholders to those stakeholders' express detriment.

This unreasonable noncompliance with performance standards and imprudent management of storm preparedness resulted in significant public anxiety and severely impacted residents' and towns' abilities to deal with the scale and scope of outages and public safety hazards caused by damaged distribution facilities.

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[25] Any reference to information or actions taken after the onset of Tropical Storm Isaias in this section is intended to contextualize the scale and ramifications of Eversource's failure to meet acceptable performance standards.

Conversely, UI, from the initial weather forecasts, undertook a reasonable, prudent, and appropriate approach in issuing its event level declaration given the relative uncertainty in the forecasts. UI declared an event level that would initiate the commensurate level of preparation required to meet public safety needs if the forecasts shifted toward the lower probability events. Consequently, as Tropical Storm Isaias, and the forecasts, changed in terms of track and intensity, UI was well-positioned to respond because it had accounted for the possibility of more severe scenarios. Therefore, the Authority finds that UI reasonably established its event level for Tropical Storm Isaias.

B. OUTAGE PREDICTION MODELS

Outage prediction models (OPM) combine historical weather data and local weather forecasts with historical outage data for a utility's service territory in an effort to predict potential damage locations for a forthcoming emergency. In the 2011 Storms Decision, the Authority noted that Eversource did not have an adequate pre-storm damage prediction model that could assist in the planning and acquisition of external resources. 2011 Storms Decision, p. 50. Nevertheless, the use of OPM is not contemplated in either company's ERP. See, Eversource ERP; UI ERP.

In advance of Tropical Storm Isaias, Eversource and UI used outage prediction models from the University of Connecticut (UConn) and DTN. Eversource received the first UConn OPM output on August 1, and the first DTN OPM output on August 2, 2020. Eversource 30-Day Event Report, p. 54. Each source eventually produced five model runs by August 3 and 4, 2020, for DTN and UConn, respectively. Id. The table below summarizes the model results showing predicted numbers of damage locations. Id.

Table 6. OPM Results for Tropical Storm Isaias

Date & Time		Organization	Predicted Damage Locations		
8/1	1600	UConn	500	to	1,000
8/2	1600	UConn	1,000	to	2,000
8/2	1600	DTN	931	to	1,552
8/2	2200	DTN	781	to	1,301
8/3	800	DTN	935	to	1,538
8/3	1000	UConn	1,500	to	3,000
8/3	1000	DTN	1,329	to	2,216
8/3	1600	DTN	989	to	1,648
8/3	2300	UConn	1,500	to	3,000
8/4	1100	UConn	3,000	to	6,000

Eversource 30-Day Event Report, p. 54.

While the damage location predictions of the UConn OPM increased with time, no predictions came close to the more than 21,000 damage locations actually experienced by Eversource. Further, the DTN predictions amounted to fewer than 8% of the actual realized damage locations during Tropical Storm Isaias.

The Authority finds that the two OPMs proved ineffective, and potentially even detrimental, to storm preparations. OPMs require weather forecasts with a high degree of confidence in order to produce meaningful outage prediction reports. Eversource Response to Interrogatory LCG-188. Therefore, the EDCs must make decisions regarding triggering the ERP, procuring additional resources, and activating its EOC before reliable OPM results are even available. Id. Consequently, at this time, OPMs are limited to confirming planning decisions, rather than being used as a planning tool themselves. Eversource Response to Interrogatory LCG-80.

Moreover, the OPMs relied on in advance of Tropical Storm Isaias provided predictions that underestimated the actual outages by several orders of magnitude. As shown in the table above, the final prediction from the UConn OPM on the morning of August 4, 2020, which ostensibly reflected the most up-to-date forecasts, nonetheless underestimated the number of outages by three to sevenfold. Similarly, the final prediction from the DTN OPM underestimated the number of outages by thirteen to twentyfold.

Even more troubling, the OPMs appear to have led to confirmation bias for Eversource by incorrectly validating its prior event level declaration, further hindering Eversource's ability to adjust in real-time to the changing storm conditions. By contrast, UI understood the limitations of the OPM results and used them more narrowly, including to determine whether coastal flooding was a risk. UI Response to interrogatory LCG-80; UI Response to Interrogatory AG-2.

C. FIELD RESPONSE AND RESTORATION CREWS

1. Line Crews

a. Standard of Acceptable Performance

Another essential responsibility of the EDCs is to secure and deploy sufficient line crews prior to an emergency event to support restoration and recovery operations. See, e.g., Eversource ERP, p. 20. Each EDC's ERP, as well as the Authority's storm response-related orders, provide a basis for the EDC's applicable performance standard with respect to this core responsibility. Importantly, the Event Level Classification discussed *supra* Section IV.A. corresponds to a resource strategy for an emergency, which may be comprised of internal resources, resources from sister companies, contractors, and utility mutual assistance. Eversource ERP, p. 16. Further, Eversource's ERP stresses that when the company develops its restoration and response strategy, it must err on the side of declaring a higher level event when it is a close determination; a higher event classification yields a greater number of line resources required for the event. Id., pp. 16, 18.

In accordance with its ERP, Eversource must assess as part of its pre-event preparedness activities the need for external line resources, vegetation management resources, service company resources, contact center staff, and support resources (i.e., damage appraisers, wire down guards, etc.). Eversource ERP, p. 22. Further, Eversource is to consider Edison Electric Institute, Regional Mutual Assistance Groups

and North Atlantic Mutual Aid Group (NAMAG) if additional resources are necessary. Eversource ERP, p. 22. Additionally, any request for mutual aid must account for travel time for optimal use of outside resources. Eversource ERP, p. 26.

UI's ERP similarly states that the company should begin to secure external contractor resources well in advance of a major event in order to ensure that estimated external resource needs can be met. UI ERP, pp. 12, 41. Event Levels 4 and greater typically require significant levels of outside assistance. UI ERP, p. 41.

Further, through the 2011 Storms Decision, the 2014 Eversource Rate Case Decision, the 2016 UI Rate Case Decision, and the Performance Standards Decision, the Authority has provided direction to the EDCs regarding the procurement and pre-staging of field restoration crews. *First*, the Authority has previously directed the EDCs to take sufficient actions in preparing for an emergency event to ensure adequate external crews are active (i.e., physically located within the EDC's service territory and actively working on damage sites) for the first 48 hours after the onset of a storm. 2011 Storms Decision, p. 116. *Second*, the Authority has ordered the EDCs to take appropriate measures in the face of unknown catastrophic storms and to aggressively pursue pre-staging resources to ensure that crews are available within the first 48 hours of a potential catastrophic storm. 2014 Eversource Rate Case Decision, p. 92; 2016 UI Rate Case Decision, p. 110. *Third*, the Authority has impressed upon the EDCs the requirement to request mutual assistance crews when the EDC reasonably believes that local resources will not be adequate to mitigate potential safety hazards, as well as to improve restoration times. *Fourth,* requests for assistance must take into account travel times to ensure resources are available to timely meet safety and restoration needs. Performance Standards Decision, Appendix A, p. 4.

Indeed, the Authority has consistently and repeatedly emphasized the importance of pre-staging activities prior to potentially severe emergencies. Pre-staging activities include in large part securing external line and tree crews, in addition to securing food and accommodations for external resources well in advance of emergency events so that crews are in position to respond when the storm hits. 2011 Storms Decision, p. 51; 2014 Eversource Rate Case Decision, pp. 91-92; UI 2016 Rate Case, p. 110. Pre-staging also includes ensuring that appropriate materials are available at field locations, such as at field crew staging areas and substations, as well as staffing those locations. Id. In short, pre-staging activities include addressing the need to ensure mutual assistance and contractor crews are staged prior to a storm. Id.

Given these requirements, pre-staging actions necessitate that the EDCs incur costs in advance of storms, especially when securing external resources far from Connecticut. Securing crews sufficiently early so that they are on location and available when the storm hits requires making decisions well before the timing and severity of the storm itself is confirmed. 2014 Eversource Rate Case Decision, p. 92. Therefore, this uncertainty regarding weather events introduces some degree of risk to the EDCs in the event storms do not materialize or prove as severe as earlier forecasts. 2014 Eversource Rate Case Decision, p. 92; 2014 UI Rate Case Decision, p. 110. The Authority recognized this risk, however, and, thus allowed both Companies an annual recovery in rates, as discussed *supra* Section III.F.-G., to support and enforce the Authority's directive that action be taken early on by the EDCs to secure external crews

through aggressive pre-staging. 2014 Eversource Rate Case, p. 92; UI 2016 Rate Case, pp. 111-112.

b. Available Eversource Resources

As shown below, Eversource's available, internal qualified line worker staffing has decreased approximately 6% since 2010. Eversource Response to Interrogatory AG-26, Attachment 1.

Table 7. Qualified Line Workers

2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
509	494	493	514	461	420	407	436	464	445	478

Id.

At the onset of Tropical Storm Isaias, Eversource had 330 combined line crews[26] available, comprising response specialist organization (RSO) troubleshooters, contractor crews, transmission crews, and line service crews. Eversource Response to Interrogatory LCG-185. Eversource claimed that, at the onset of Tropical Storm Isaias, it had an additional 590 internal and contractor crews stationed in Massachusetts and New Hampshire that were available to "pivot" to Connecticut. Id. Thus, Eversource asserted that, by July 31, 2020, Eversource had a total of 920 (330 + 590) crews available either already stationed in Connecticut or available to "pivot" to Connecticut from Massachusetts or New Hampshire. Eversource 30-Day Event Report, p. 40. Eversource insisted that when combined with the "pivot" crews, its 330 internal and local contractor crews were sufficient to deal with a high-side Level 4 Event and low-side Level 3 Event. Eversource Response to Interrogatory LCG-185.

The documented line resources Eversource had available in Connecticut on August 4, 2020 are presented below, a review of which does not indicate that any "pivot" crews had in actuality "pivoted" to the Connecticut service territory prior to the onset of the tropical storm.

[26] A crew may consist of 1, 2, or more line workers with a reasonable average being slightly higher than 2. See, Eversource Response to Interrogatory AG-6, Attachment 1; Eversource Response to Interrogatory AG-3SP01, Attachment 1.

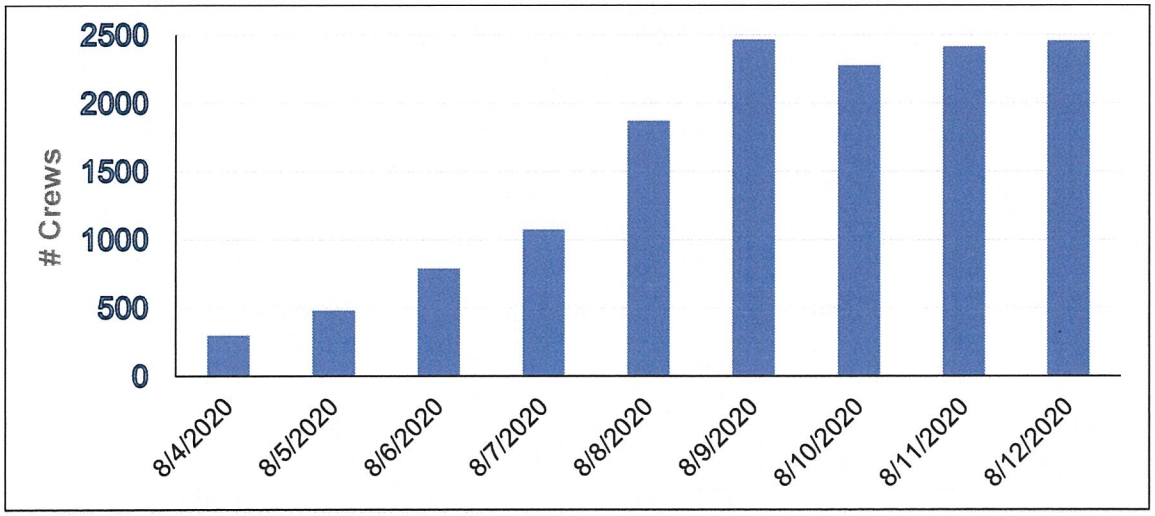
Table 8. Eversource Reported Line Resources in Connecticut on August 4, 2020

Crew Resources		Count
Line Resources	Transmission	41
	Internal Distribution	74
	Contract Distribution	72
	RSO Trouble shooters	116
	Service Crews	27
Total Line Crew Resources		330

Eversource 30-Day Event Report, p. 51.

The figure below shows the number of line crews available, by day, during the restoration efforts in response to Tropical Storm Isaias.

Figure 3. Total Eversource field crews working at 3:00 p.m. each day
(excluding service crews)



Eversource Response to Interrogatory AG-3SP01 and AG-6, Attachments 1.

The below table provides more granular detail about the available crews during the first 48 hours after the onset of the tropical storm.

Table 9. Total Eversource Crews by Day
(excluding service crews)

Date	Time (Approx.)	Total crews (excluding service crews)
8/4/2020	7:00	297
	15:00	302
	23:00	351
8/5/2020	7:00	467
	15:00	484
	23:00	519
8/6/2020	7:00	699
	15:00	791
	23:00	810

Eversource Response to Interrogatory AG-6, Attachment 1.

The overall timeline with respect to the acquisition of both internal and external (i.e., contractor, affiliate, or mutual aid) line crews follows: of the line crews that were in Connecticut and working on the distribution system on August 4, 2020, Eversource secured 324 on July 31, 2020, or on August 1, 2020. Eversource Response to Interrogatory LCG-43, Attachment 1. Eversource secured no crews on August 2, 2020. Id. On August 3, 2020, Eversource secured 12 crews from CT-ERSG, which began working August 4, 2020. Id. Eversource also secured 9 crews from Eversource MA on August 3, 2020, which were working in Massachusetts and did not begin working in Connecticut until August 6, 2020. Id. Eversource secured no other crews on August 3, 2020. Id. Eversource secured 28 crews around 10:00 a.m. on August, 4, 2020, from Pennsylvania, none of whom began working in Connecticut until August 7, 2020, at noon. Id. Eversource secured no other crews prior to the onset of the storm. Id. On August 4, 2020, shortly after the onset of the storm, Eversource secured an additional 53 crews, all of which began work in Connecticut on either August 7 or 8, 2020. Id. Eversource did not secure crews in force until August 5, 2020, when it secured 805 external resources: 12 crews at 8:00 a.m. and the remaining 793 crews after 1:00 p.m. Id.

The more granular timeline that addresses the subset of "pivot" crews acquired for work within the Connecticut service territory follows. As stated previously, Eversource claims that it had 590 line crews available to "pivot" to Connecticut from Massachusetts and New Hampshire. Eversource Response to Interrogatory LCG-185. By the morning of August 5, 2020, Eversource had received in Connecticut 173 crews from Massachusetts. Eversource Response to Interrogatory AG-3SP01, Attachment 1. By 11:00 p.m. on August 6, 2020, Eversource had received an additional 175 crews from Massachusetts. Id. Eversource appears to have received 18 pivot crews from New Hampshire by 3:00 p.m. on August 6, 2020. Id. Thus, within 48 hours of the onset of the tropical storm, Eversource had received 366 of the available 590 "pivot" crews.

Id. Eversource received another 154 "pivot" crews around 8:00 a.m. on August 7, 2020. Id. Eversource appeared to receive the remaining pivot crews from New Hampshire and Massachusetts by 7:00 a.m. on August 8, 2020. Id.

The companion granular timeline that addresses the subset of mutual aid crews[27] acquired for work within the Connecticut service territory follows. On July 30, 2020, Eversource began participating in North American Mutual Aid Group (NAMAG) calls regarding Tropical Storm Isaias. Eversource 30-Day Event Report, p. 37. NAMAG member utilities were not releasing crews at that time due to the high uncertainty around the storm. Id. According to Eversource, the company continued to participate in NAMAG calls, yet the company did not request any line restoration or tree crews until August 4, 2020. Id., p. 50; Eversource Response to Interrogatory LCG-194; Eversource Response to Interrogatory AG-2. On August 4, 2020, Eversource requested 800 restoration crews and 100 tree crews. Tr. 12/21/20, p. 994. Eversource made no other requests for resources through NAMAG. Eversource Response to Interrogatory LCG-194.

Eversource asserts that through August 3, 2020, it had exhausted all possible channels to obtain external crews within 1 - 2 driving days of Connecticut and that there were no available crews available through mutual aid prior to August 4, 2020. Eversource Response to Interrogatory LCG-185. Eversource stated that due to the track of the storm along the eastern seaboard, no utilities in the northeast or along the eastern seaboard were releasing their internal or contract crews prior to the event. Id.

Eversource stated that when securing mutual aid crews for storms generally – and for Tropical Storm Isaias in particular – the company avoids bringing in crews early when weather forecasts are uncertain because it seeks to avoid incurring pre-staging costs. Eversource 30-Day Event Report, p. 37. Further, an Eversource witness argued that the line resource level listed in the Event Level Matrix is not the level of resources that should be expected to be standing on day one, but that they are what is needed to meet the typical restoration duration that is provided in the Event Level Matrix. Tr. 12/21/20, pp. 1065 and 1069.

In sum, Eversource had line crews in-state prior to the storm that were consistent with a low Level 4 Event and then, over a period of several days, obtained resources consistent with a Level 1 Event. Therefore, although Eversource ultimately secured sufficient line crews *after* the occurrence of the emergency, the issue is whether Eversource adequately pre-staged a sufficient number of line crews – especially to provide assistance within the first 48 hours – and whether Eversource augmented its initial acquisitions with reasonable expediency given the worsening and converging forecasts.

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[27] Eversource initially secured 120 non-affiliate mutual aid crews from Canada on July 31, 2020. However, those crews were considered part of the initial set of "pivot" crews and were pre-positioned in Massachusetts, not Connecticut. Tr. 12/21/20, p. 950-951; Eversource 30-Day Event Report, p. 40.

c. Available UI Resources

UI's level of internal qualified lineworkers has remained steady or increased slightly in the last ten years. UI Response to Interrogatory AG-26.

Table 10. Qualified UI Line FTEs

2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
67	73	71	77	79	88	80	80	80	83	75

Id.

As discussed previously, UI rendered its Event Level 3 declaration on July 31, 2020. UI Response to Interrogatory LCG-233. In accordance with the company's ERP, that event level corresponds to approximately 95,000 to 160,000 customer outages and a five- to seven-day restoration duration. Id. As such, the ERP details a resource strategy that requires the company to supplement its available internal line crews with external resources.

UI's ERP Event Level Matrix guidelines specify the following resource range:

Table 11. UI ERP Anticipated Outside FTEs by Event Level

Type	Level 3	Level 2	Level 1A
Line Workers	100 to 150	150 to 300	300 to 450
Tree Workers	90 to 170	170 to 320	320 to 470
Low Voltage Service	20 to 30	30 to 100	100 to 200
Damage Assessors[28]	50 to 100	100 to 150	150 to 200

UI ERP, p. 48.

On August 4, 2020, UI had 163 (48 contractor lineworker FTEs + 115 mutual assistance lineworker FTEs) "outside" line worker FTEs deployed in its service territory, which is in line with a high Level 3 Event or a low Level 2 Event. UI response to AG-6, Attachment 1. UI confirmed that the "Outside FTE table" embedded in its ERP is intended to indicate the number of outside FTEs that must be pre-staged (i.e., active and inside the service territory during or immediately following the storm event) so as to respond to an emergency of the indicated Event Level. Tr. 12/16/20, pp. 627-628.

In order to achieve the required staffing levels discussed above, UI made requests through NAMAG for 100 FTE line resources on the mornings of Sunday, August 2, Monday, August 3, and Tuesday, August 4, 2020. UI 30-Day Storm Report, pp. 6-7. UI also requested, on Monday August 3, 2020, and on Tuesday August 4, 2020, 100 tree clearance crews from NAMAG. Id. NAMAG made no allocations to UI

[28] This FTE range for Damage Assessors is incorrectly listed in the company's ERP as external only. Instead, this range is for the total (i.e., internal and external) FTE for damage assessors. Tr. 12/18/20, pp. 828-829.

for any of those calls. Id. On Monday afternoon, however, UI secured 100 FTE line resources from Avangrid affiliates. Id., p. 7.

UI continued to secure additional line restoration and field crews through the first several days of its response to Tropical Storm Isaias. UI was eventually able to secure 164 lineworkers and 83 line clearance workers from NAMAG. UI 30-Day Storm Report, p. 27. The table below shows available number of workers in the UI service territory by day.

Table 12. Total UI Resources by Day

Date	UI Line FTEs	Contractor Line FTEs	Contractor Tree FTEs	UI Service FTEs	Contractor Service FTEs	Total on Property
8/4/20	99	150	136	15	0	400
8/5/20	99	150	136	15	0	400
8/6/20	99	165	164	14	16	458
8/7/20	99	165	260	14	14	552
8/8/20	99	317	389	14	16	835
8/9/20	99	372	405	13	39	905
8/10/20	99	372	405	14	39	929
8/11/20	99	115	193	14	39	460

UI 30-Day Storm Report, p. 25.

Over the course of the response effort, UI relied on a total (internal plus contractor/mutual aid) resource level of 471 lineworkers, 405 line clearance (tree) workers, and 53 low voltage service workers. UI 30-Day Storm Report, p. 2.

Due to the sheer number of blocked roads being reported and recognizing that its first priorities are life and safety issues, UI's incident management team made a distinct choice to focus on clearing blocked roads, as well as cut and clear Make Safe activities. UI Response to Interrogatory LCG-288. Therefore, the company provided additional crews to towns for this purpose and had fewer crews to dedicate to outage restoration. Id. The company recognized that this decision may have slowed restoration; thus, UI asserts that it made a concerted effort to secure additional line restoration and clearance crews to meet global restoration times. Id.

d. Analysis and Determination

The Authority has been clear, consistent, and accommodating with respect to its regulation of both EDCs so as to ensure that each EDC prepares appropriately in the face of uncertain weather events.

In the 2011 Storms Decision, the Authority found that Eversource was not aggressive enough in seeking assistance from external line crews in preparation for the storm. 2011 Storms Decision, p. 50. As a result, the Authority emphasized that one of the most important lessons to be learned from the October 2011 Nor'easter was that the EDCs' decision-making must, necessarily, be conservative (i.e., assuming the strongest

possible storm and aggressively procuring outside resources) when facing an event of unknown or potentially significant impact. Id. In that proceeding, the Authority found that Eversource's performance was deficient, given that Eversource did not aggressively secure resources ahead of time; the company failed in making earlier attempts and pre-staging existing resources as well. Id., p. 51. Consequently, the Authority specifically required that Eversource take action to focus on obtaining resources to be "available during the first 48 hours of a major storm event to assist in efforts to assure public safety." Id. The Authority later repeated in that same Decision that its major concern was about the number and availability of line workers during the initial phases of a major storm event. Id., p. 53.

In contrast, with respect to Superstorm Sandy in 2012, in the Decision dated August 21, 2013, in Docket No. 12-11-07, PURA Investigation into the Performance of Connecticut's Electric Distribution Companies and Gas Companies in Restoring Service Following Storm Sandy, the Authority acknowledged how Eversource effectively secured and pre-staged supplemental lineworkers. Storm Sandy Decision, pp. 16-19 and 54.

In the 2014 Eversource Rate Case Decision, the Authority again reiterated the importance of taking aggressive action to prepare for storms, noting the major benefits of pre-staging resources both for storm restoration and public safety: "...PURA has encouraged the EDCs to make conservative decisions to ensure the state is adequately prepared for a catastrophic storm." 2014 Eversource Rate Case Decision, p. 92. Further, to mitigate the uncertainty of cost recovery and to eliminate any potential disincentive for the company to sufficiently pre-stage crews, the Authority authorized recovery of funds through a reserve specifically designed to support pre-staging of resources for storms that do not ultimately materialize. Id.

In short, the Authority has made abundantly clear the importance of pre-staging crews for major storms, due to the important public safety and other benefits of such efforts; indeed, many of these benefits were realized in the EDCs' response to Superstorm Sandy and again with respect to UI's response, in most municipalities, to Tropical Storm Isaias. These benefits were most assuredly not realized in the Eversource service territory given the myriad deficiencies with respect to the company's pre-staging decisions, which trace back to Eversource's failure to comply with acceptable performance and prudence standards in its monitoring of Tropical Storm Isaias and in its initial and revised event level declarations.[29]

Eversource asserts that its initial event level declaration and subsequent external crew acquisition was reasonable since "Storm Isaias had a catastrophic impact beyond any expectations held prior to the event and beyond what was predicted by multiple weather forecasts and models." Eversource Reply Brief, p. 26. The latter assertion is simply untrue. As outlined *supra* in Section IV.A., Eversource knew more than 24-hours

[29] A key reason that event level classifications are so important for storm preparedness and response is that external crews need to be secured in advance of storms so that they are available in a timely manner. This is understood by both Eversource and UI, as one of the key associations with Event Level is the ability to assess the needs for mutual aid crews. See, e.g., Eversource ERP, p. 16.

ahead of the storm impact that Tropical Storm Isaias would more than likely hit its service territory with tropical storm-force winds that should have triggered, at minimum, an Event Level 3 classification.

Even more troubling were the consequences of this failed event level escalation, as the company declined to revise or augment its pre-staging plans even as the forecasts converged. As detailed above, Eversource procured the vast majority of its external crews on July 31, 2020, and on August 1, 2020, based on initial weather forecasts. Subsequent to August 1, 2020, Eversource procured only an additional 9 crews that arrived within two days of the storm, despite *all* weather forecasts steadily increasing the probability of a more severe storm.[30]

Further, the Authority finds little merit in Eversource's assertion that there were no additional mutual aid or contractor crews to secure prior to August 4, 2020. Eversource Response to Interrogatory LCG-185. NAMAG is not the only mutual assistance group made available to Eversource, nor are utilities along the eastern seaboard the only available utilities from which to obtain crews. Eversource ultimately obtained mutual aid crews from other regions, including the Southeast Electric Exchange, the Midwest Mutual Assistance Group, and the Great Lakes Mutual Assistance Group. Tr. 12/22/20, p. 1350. Nor does the Authority find merit in Eversource's argument that it exhausted all possible channels to secure crews within a 1 - 2 day drive of Connecticut. Everource Response to Interrogatory LCG-185. Up to and including August 3, 2020, Eversource appeared to have sought crews only from NAMAG and the eastern seaboard; the record evidence does not support Eversource's contention that it exhausted all possible channels.

Indeed, Eversource's resource acquisition team was able to secure crews on its own from states outside of the eastern seaboard or northeast, such as Illinois, Indiana, Kansas, Michigan, Wisconsin, Missouri, Texas, Oklahoma, Tennessee, and Ontario, Canada. Eversource Response to Interrogatory LCG-43, Attachment 1. Upon review of the data provided in response to Interrogatory LCG-43, it appears that approximately 360 crews were procured from Illinois, Michigan, Tennessee, and Canada alone on or after August 4, 2020; the overwhelming majority of which appear to have arrived within 48 hours of being hired. Id. This evidence directly contradicts the unsubstantiated assertions by Eversource that "[t]he Company's complement of 920 line resources was the maximum level of crews available for utilization in Connecticut as of the date of the event." Eversource Response to Interrogatory LCG-185. There was no indication that on August 3, 2020, or earlier, Eversource sought additional crews from locations outside of the northeast and eastern seaboard; there is only indication that Eversource looked to NAMAG and the eastern seaboard, saw no crews, and failed to further assess their resource procurement options. See, Eversource Response to Interrogatory LCG-185 ("there were open requests by other utilities to *NAMAG* ... that went unfulfilled all weekend and into the event on August 4, 2020....[N]o utility on the *eastern seaboard* was in a position to release crews.").

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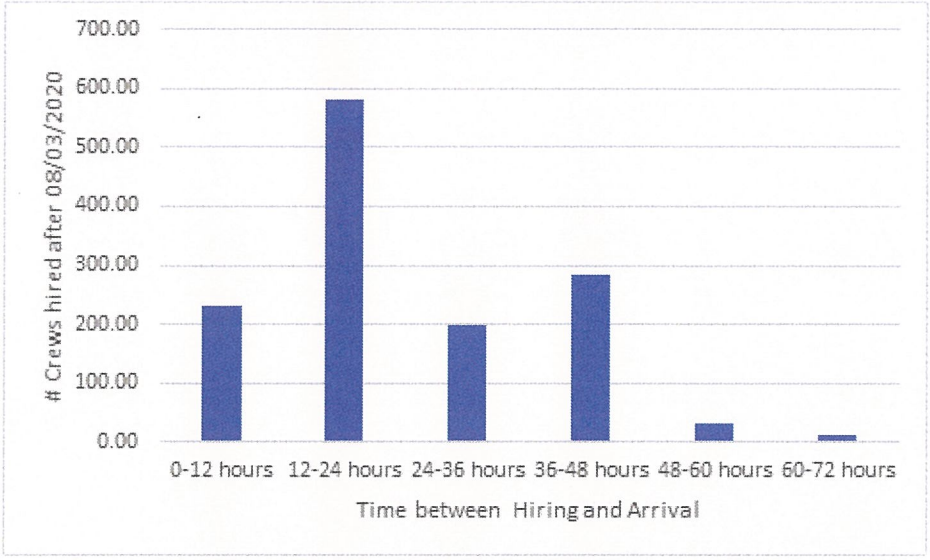
[30] Nearly half of the "available" 920 crews procured by Eversource did not begin work in Eversource's Connecticut territory until more than 24 hours after the occurrence of the emergency.

The Authority is not in a position to micromanage Eversource and its ability to secure sufficient crews. The Authority does, however, have the obligation to: (1) establish standards and expectations to be met by the EDCs in preparing for and responding to emergency events (e.g., that Eversource ensure adequate external crews are active for the first 48 hours after the onset of a storm); (2) require that Eversource consider these standards and plan accordingly (e.g., approve ERP guidelines establishing crew resource needs and the requirement that Eversource scale line resources as necessary; ERP, pp. 15, 16, 34, 67); and (3) support the Company within the regulatory framework (see, e.g., pre-staging reserve described above). When it is time to prepare for and respond to an event, it is incumbent upon Eversource, not the Authority, to meet the established standards. The standard of securing sufficient crews to address public safety and other concerns during the first 48 hours after the onset of an emergency event was not ambiguous, particularly as the Authority has consistently stated and reaffirmed this standard, as discussed herein. In response to Tropical Storm Isaias, it is clear Eversource did not meet this standard; nor did Eversource sufficiently demonstrate that it undertook a good faith effort to meet this standard and secure sufficient crews.

As the record bears out, every hour in the days leading up to Tropical Storm Isaias mattered in terms of securing available external resources, especially in light of the regional nature of the weather event and the associated impacts on mutual aid availability.[31] To illustrate this point, the Authority analyzed the crew arrival time for the more than 2,500 crews that Eversource secured on August 4, 2020, or later. Eversource Response to Interrogatory LCG-43, Attachment 1. The average time it took for a crew to arrive in Connecticut once hired by Eversource was 24 hours. Id. The average time it took for a crew to begin work in Connecticut once hired was approximately 40.5 hours. Id. Thus, it is reasonable to conclude that had Eversource made a decision at any point on or before 2:00 p.m. on August 3, 2020, it could have had upwards of 800 additional external crews stationed in Connecticut by the onset of the storm. Figure 4.1 shows in more granular detail the travel times for various mutual aid crews.

[31] Both Eversource and UI were aware as early as July 31, 2020, that utilities along the east coast were not releasing crews for mutual aid work. Tr. 12/21/20, p. 993 and Tr. 12/16/20, p. 650. Subsequent analysis is offered in this subsection to demonstrate the profound consequences of Eversource's failure to timely and reasonably act on information known to its management at the time such decisions were undertaken.

Figure 4.1 Time Delay for Various Crews from Time of Hiring to Time of Arrival in Connecticut
(for crews hired on or after August 4, 2020)

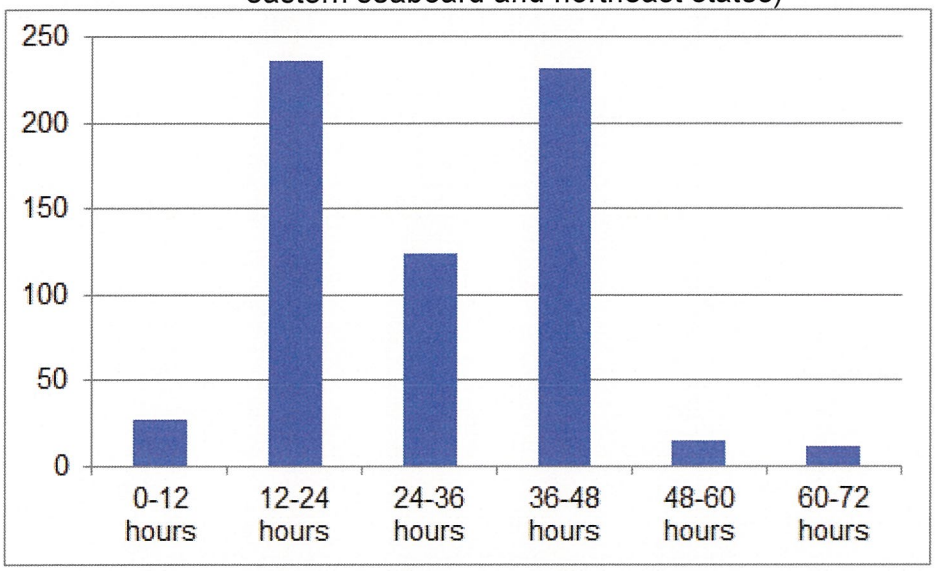


Eversource Response to Interrogatory LCG-43, Attachment 1.

Recognizing that many crews in the above analysis came from states that, according to Eversource, were holding crews before August 4, 2020, the Authority performed a second and more conservative analysis on the same data removing all crews from Canada, Connecticut, Delaware, Florida, Rhode Island, Massachusetts, Maryland, Maine, North Carolina, New Hampshire, New York, Pennsylvania, South Carolina, Virginia, and Vermont. Performing this analysis reveals that, even excluding the states alleged by Eversource to have been holding crews in advance of the storm, more than 250 additional external crews could have arrived within 24 hours and more than 360 could have arrived within 36 hours from non-eastern seaboard or NAMAG jurisdictions. Assuming these crews were available just days earlier, on the morning of August 3, 2020, Eversource could have had all 250 additional external crews stationed in Connecticut at the onset of the storm and all 360 additional crews in Connecticut by the morning of August 5, 2020 to assist in public safety calls and town priorities. Procuring even one-third of that number of crews (120 crews) would have, all else equal, opened the option for Eversource to dedicate one Make Safe crew to each of the 130 towns that reported blocked roads to Eversource by August 5, 2020.[32] Eversource Response to Interrogatory RSR-41.

[32] More will be discussed in later sections regarding the consequences of the failures of Eversource to reasonably meet its obligations to municipalities and customers by not having adequate crews available at the start of the storm and within the first 48 hours afterwards.

Figure 4.2 Time Delay for Various Crews from Time of Hiring to Time of Arrival in Connecticut
(for crews hired on or after August 4, 2020, and excluding eastern seaboard and northeast states)



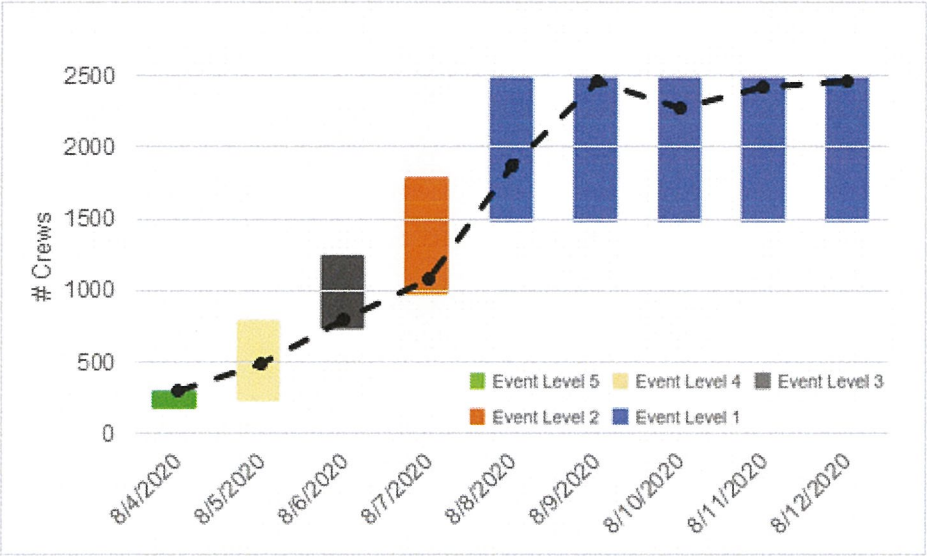
Eversource Response to Interrogatory LCG-43, Attachment 1.

The Authority notes that the above analysis is strictly for illustrative purposes only as Eversource failed to obtain any information on the availability of non-eastern seaboard and NAMAG line resources on or before August 3, 2020. While these examples are illustrative, the latter analysis is particularly indicative of the resource options the company could have, and failed to, pursue to meet the clear standards of acceptable performance within the first 48 hours after an emergency event. In short, these examples highlight the potential for crews arriving in Connecticut had Eversource shown more urgency and diligence prior to the event in obtaining crews from beyond the northeast or along the eastern seaboard, and acted on information known or knowable to its management at the time. Eversource's actions in failing to even consider the possibility of retaining such resources can only be described as unreasonable and imprudent, particularly as their procurement of resources from these jurisdictions did, eventually, occur, but only after the onset of the storm and political and public pressure mounted.

Eversource made one attempt on August 4, 2020, to secure crews through its primary mutual aid group NAMAG; however, as demonstrated above, Eversource secured little to no crews from August 2, 2020, through August 4, 2020. It was not until August 5, 2020, well into its response efforts, that Eversource was able to secure a significant amount of restoration crews (805), only 39 of which worked sometime on August 5, 2020, and the majority not available in Connecticut until August 6, 2020, or later. Eversource Response to LCG-43, Attachment 1. Also, Eversource's so-called "pivot" crews did not arrive in Connecticut fully until well after 48 hours following the storm onset. Eversource simply did not have enough crews available in the crucial early stages of emergency response and restoration, despite substantial and consistent regulatory directives to the contrary.

Figure 5 below shows Eversource crew numbers working per day, along with a graphical representation of its ERP resource strategy by event level. The figure demonstrates that Eversource did not satisfy its own standards as established in its ERP for necessary crew numbers, and the result for towns and residents across its service territory was catastrophic, as discussed in detail in subsequent sections. Contrary to Eversource's insistence that it had enough crews "available" to respond to a high-side Event Level 4 / low-side Event Level 3, the figure below demonstrates that its August 4, 2020 available resources were sufficient for only a low-side level 4 event. It was not until August 6, 2020, that Eversource Connecticut was in physical possession of sufficient resources for a high-side 4/low-side 3 event.

Figure 5. Daily Crews Compared to Eversource Event Level Resource Strategy



Eversource Response to Interrogatory LCG-43, Attachment 1.

Put simply, Eversource's assertion that its pivot crews were available to respond in Connecticut is not credible. As noted above, most of the "available" 590 pivot crews remained in Massachusetts or New Hampshire through at least August 6, 2020. The Authority finds that this is not consistent with the Merger Decision settlement agreement as described in Section III.C., further evidencing that Eversource was unreasonable in allocating its resources across Eversource's multiple service territories for emergency response. Table 13 below shows the level of damage and magnitude of outages in Eversource's different service territories in Massachusetts, New Hampshire, and Connecticut.

Table 13. Comparison of Tropical Storm Isaias Damage Across Eversource Territories

State	Peak Outages		Total Outages		Trouble Spots	
CT	632,632	83%	1,152,046	78%	21,677	84%
NH	70,669	9%	125,980	9%	1,853	7%
MA	57,703	8%	200,278	14%	2,309	9%
TOTAL	761,004		1,478,304		25,839	
	Damaged Poles		Primary and Secondary Wire		Transformer	
CT	2,302	92%	20,945	92%	1,158	91%
NH	82	3%	702	3%	52	4%
MA	129	5%	1,002	4%	63	5%
TOTAL	2,513		22,649		1,273	

Eversource Response to Interrogatory AG-033, Attachment 3, p. 6.

As reflected above, in terms of outages and trouble locations, Connecticut represented approximately 80% of all outages and damage locations across Eversource's three jurisdictions. In terms of damaged infrastructure, Connecticut accounted for more than 90% of the total damage Eversource sustained across its three state territories. Despite Connecticut suffering 80% of all service territory outages and damage locations, Eversource mobilized only 173 of the available 590 pivot crews, or fewer than thirty percent (30%), to Connecticut in the first 48 hours. This is *prima facie* an unfair and unequal allocation of resources across Eversource's three-state operating region.

Furthermore, Eversource's approach (or lack thereof) to securing adequate resources in advance of a storm event is in direct contravention of Authority directives, as well as its own ERP. Due to stated cost concerns, Eversource has adopted a policy of not taking aggressive action to secure crews in advance of a storm event when the forecast is still uncertain. Eversource 30-Day Event Report, p. 37. This policy is news to the Authority. It is not reflected in Eversource's ERP nor, more importantly, was it articulated when Eversource requested and received specific funding from customers in rates for pre-staging in its last two rate cases. The Authority finds that this policy is not prudent, nor is it in reasonable compliance with acceptable performance standards.

Further illustrating the point, and as discussed above, UI properly employed an aggressive approach to pre-staging in advance of the tropical storm, based on much of the same information and all of the same directives from the Authority and, as a result, was reasonably well prepared with adequate line resources to perform necessary restoration, response, and Make Safe duties.

Eversource defends its pre-staging efforts by arguing that the line crew levels specified in its ERP Event Level classification indicate only the level of resources needed to enable timely restoration. Tr. 12/21/20, pp. 1065 and 1069. In essence, Eversource takes the position that, as long as it *eventually* secures an adequate

number of line crews and restores power in a reasonable time, it has met its public service obligation. The Authority disagrees with this absurd interpretation. Further, as demonstrated in Figure 5 above, the peak number of line resources used during the restoration efforts in response to Tropical Storm Isaias exceeded the number of line resources listed in the Event Level Matrix for any Event Level declaration in place before, during, or after Tropical Storm Isaias (Event Levels 4, 3, and 2). In short, the Authority is unclear how Eversource used the line resources listed in the Event Level Matrix to support its preparation for and response to Tropical Storm Isaias as Eversource neither followed the matrix in procuring resources for day one of the storm response, nor did it follow it in procuring the maximum line resources used to restore power after Tropical Storm Isaias. Rather, what *is* clear, is that Eversource did not follow its ERP or the Event Level Matrix in procuring resources before, during, and after Tropical Storm Isaias.

Additionally, the Authority is not persuaded that Eversource's procurement strategy reasonably balanced the company's known obligations and performance standards in terms of timely restoration and addressing public safety concerns. The Authority agrees that timely restoration is critical to storm recovery; however, prudent and reasonable storm response efforts must also address the immediate public safety risks posed during and immediately following an emergency event. The ERP provides line crew levels, but it does not (nor could it) dictate how and when an EDC should deploy the line crews. The responsibility to make prudent and reasonable decisions to adequately address both restoration and its Make Safe duties falls on the EDC. The EDC must provide adequate and timely levels of line resources to respond to life safety and wire down calls to assist the municipalities and to protect public safety.

Eversource's failure to pre-stage and have available sufficient resources to respond within 48 hours of Tropical Storm Isaias created a significant risk to public safety. As further detailed herein, Eversource was not able to respond in a timely manner nor meet its public service obligations. Eversource's deficiencies impaired the ability of municipalities to address outages, blocked roads, and other utility hazards. A reasonable and prudent storm responder would have pre-staged sufficient line resources to be available during the first 48 hours of a major storm to assure public safety. Consequently, the Authority finds that Eversource failed to reasonably comply with established performance standards and acted imprudently by failing to adequately secure, pre-stage, and deploy sufficient line crews during the first 48 hours of storm response.

In certain instances, UI was also deficient in deploying enough line crews in the first 48 hours of storm response to address all of its Make Safe obligations. As discussed *infra* in Section IV.D.2. Experience of the Municipalities, the City of Bridgeport's emergency management director noted that the line crew numbers were slightly too small for an ideal response in his town within the first 48 hours.

However, the Authority finds that, on balance, reasonably UI secured and deployed adequate crews both in the pre-staging phase, as well as within the first 48 hours after the end of the storm, to perform its public safety functions and to perform timely restoration. Thus, the Authority finds that UI reasonably satisfied the applicable

performance standards and acted prudently in securing and pre-staging line resources for its storm response.

In addition to revealing deficiencies in the EDCs' responses, Tropical Storm Isaias has shown that the external crew number guidelines in the ERPs are not sufficient in light of the EDCs' respective internal staffing trends. Therefore, the Authority will direct UI and Eversource to increase its external crew number guidelines by at least 10% for Event Level 3 and higher-class events.

2. Damage Assessors and Estimated Restoration Times

a. Standards of Acceptable Performance

Assessing storm damage and communicating restoration times in a timely and accurate manner to stakeholders is a core responsibility of the EDCs in responding to storm events. As such, the ERPs describe the process and standards for assessing damage and delivering damage assessments. Performance Standards Decision, Appendix A, p. 3. Each EDC must expediently assess damage and provide timely updates through its outage management system (OMS) in order to minimize the latency between damage assessment, restoration planning, and estimates of restoration time. Id., p. 8. Damage assessment is essential to ascertaining the significance of the storm event, identifying the locations of damage and related access restrictions, and determining other information needed to effectively choose a restoration strategy and develop restoration estimates. Eversource ERP, p. 14; UI ERP, p. 12.

The primary resources used to conduct damage assessment are the damage assessors or damage appraisers (DAs). DAs are used during storm events to identify damage locations and the amount of physical damage inflicted by a storm event on a company's system, such as number and location of broken poles, transformers, and conductors, and associated tree damage. Khan, Kalbfleisch, & Gaylord PFT, p. 12. DAs also note the location of Make Safe blocked roads and evaluate reports of wires down. Id.; Eversource Response to Interrogatory LCG-14. DAs collect and report information that is recorded in an EDC's OMS, which is then used to develop a restoration strategy, including an estimated time of restoration for customers. Khan, Kalbfleisch, & Gaylord PFT, p. 12.

The ERPs establish certain standards and expectations, including:

- Setting reasonable expectations for stakeholders and delivering on those expectations.
- Providing communities with accurate, timely, and consistent information.
- Completing an initial damage assessment and providing a global restoration projection within 48 hours after a storm has left our service territory.
- Ensuring that sufficient numbers of qualified resources are secured in a timely manner to support an efficient restoration process.

Eversource ERP, p. 13; UI ERP, p. 11, 12, 36, 46 and 48.

Communications with the public, customers, media, regulatory agencies, and federal, state, and local governments must operate effectively in order to exchange accurate and timely information on system conditions and restoration activities. UI ERP, p. 13. Timely and accurate information for customers and stakeholders is equally as important as safe and prompt restoration of service. Eversource ERP, p. 7.

The ERPs also establish guidelines to ensure that enough qualified personnel are available to fulfill these assessment and communication obligations. Id., p. 12. UI's ERP provides a range of the number of damage assessors that would typically be needed under varying emergency event levels. Id., p. 48.

b. Eversource Performance

Eversource's initial objectives of damage assessment are twofold: (1) to assist in the triage of priority FPS[33] calls; and (2) to evaluate the total number of events that need to be fixed to arrive at 99% restoration by town. Eversource Late Filed Exhibit No. 20. Eversource uses an algorithm to determine the number of Damage Assessors needed to identify all the outage events for accurate development of town-based ETRs. Id. Eversource continually evaluates the number of damage assessors that are needed based on the time remaining until town-level ETRs are due.

To issue town-level ETRs, Eversource must identity approximately 80% of the events that have caused multiple outages. Id. About 50% of events involve more than one outage, so on average the company strives to have its damage assessors identify 40% (0.50 x 0.80 = 0.40) of trouble spots before determining town-specific ETRs. Id. Eversource dispatches its DAs to the field based on outage locations identified by its OMS. Khan, Kalbfleisch, & Gaylord PFT, p. 14. The OMS identifies the damage locations from reports from customers, stakeholders, and field devices. Id.

On August 4, 2020, prior to the onset of Tropical Storm Isaias in Connecticut, Eversource predicted an Event Level 4, which corresponds to between 500 and 6,000 potential trouble spots. Eversource Late Filed Exhibit No. 20. Using its algorithm, Eversource determined that it would need 89 - 179 DAs, of which only 109 were available. Id. By the evening of August 4, 2020, after initial damage reports became available and after the company re-classified Tropical Storm Isaias to an Event Level 3, Eversource determined that it would need to substantially increase its number of DAs to 332. Id., Attachment 1. Indeed, as of August 5, 2020, the company had identified more than 21,000 trouble spots, thus confirming that 332 DAs would be necessary to issue town-level ETRs by August 8, 2020. Id.

Overall, Eversource employed a maximum of 386 damage assessors to assess distribution and service damage locations over the course of the event. Response to Interrogatory LCG-23. Eversource used 54 damage assessors to evaluate substation damage, as well as three helicopters and transmission line crews to patrol transmission lines. Id. The following table depicts the daily number of damage assessors Eversource deployed throughout the response effort.

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[33] As discussed in further detail below, fire, police, and safety calls are designated as priority level 1 - 3.

Table 14. Peak Number of Damage Assessors Working by Day

Number of Damage Assessment Crews/Resources									
8/4/20	8/5/20	8/6/20	8/7/20	8/8/20	8/9/20	8/10/20	8/11/20	8/12/20	8/13/20
106	160	235	351	328	373	306	306	160	80

Eversource Response to Interrogatory LCG-86, Attachment 1.

Based largely on its damage assessment activities, Eversource issued a global ETR of Tuesday, August 11, 2020, at 11:59 p.m. Eversource Response to Interrogatory LCG-171. The evening of Saturday, August 8, 2020 – roughly four days after Tropical Storm Isaias hit Connecticut – Eversource released its town-level ETRs. Id. Restoration for all 149 towns was substantially complete by midnight on August 12, 2020. Id., Attachment 1. One hundred and eighteen towns (79%) were substantially complete in line with town-level ETRs. Id. Thirty-one towns (the remaining 21%) were not restored to a status of substantially complete within the specified town-level ETRs. Id.

c. UI Performance

UI's ERP provides the following guidelines for determining damage assessment resources.

Table 15. ERP Resource Matrix

Resources	Event Level				
	4	3	2	1A	1
Damage Assessors	Up to 50	50-100	100-150	150-200	200-400

UI ERP, p. 48.

UI had available between 60 and 93 DAs during the event at any time. UI Response to Interrogatory AG-6, Attachment 1. Table 16 below shows the peak number of damage assessors working each day of response.

Table 16. Peak Number of Damage Assessors Working by Day

8/4/20	8/5/20	8/6/20	8/7/20	8/8/20	8/9/20	8/10/20	8/11/20
60	65	76	99	93	93	84	79

UI Response to Interrogatory LCG-86, Attachment 1.

As of August 5, 2020, UI was aware of over 100,000 outages, had 1,000 outage tickets in its OMS, and had received hundreds of wire-down orders. UI Response to Interrogatory LCG-306. On August 6, 2020, UI released its first global ETR of six (6) days, through August 10, 2020, based on its Event Level Classification guidelines. UI

ERP, p. 45; UI 30-Day Storm Report, pp. 27, 30.[34] UI selected six days as the global ETR because initial damage reports put this storm on the high-side of the Level 3 classification. UI Response to Interrogatory LCG-306. This global ETR also became the town-specific ETR since the storm generally affected all municipalities in UI's territory equally. UI 30-Day Storm Report, p. 27. Following the declaration of the global ETR, UI provided daily updates on the ETR as damage assessment was conducted and as more information, including the number of line crews, became available. Id.

UI did not evaluate the accuracy of its town-level or global of ETRs. UI Response to Interrogatory LCG-171. However, 90% of customers were restored by the afternoon of August 7, 2020, with substantial restoration (i.e., greater than 99% customers restored) completed by the afternoon of Monday, August 10, 2020. UI 30-Day Storm Report, p. 26. While UI did not itself perform an analysis on town-by-town basis whether it met the town-level ETR, it provided the underlying data necessary to perform this analysis. Id., Figure 11, p. 26. The Authority performed this analysis and finds that UI met its town-level projections for each town in its service territory.

d. Analysis and Determination

Since DAs assist in the early stages of storm response, both by identifying blocked roads and by contributing to the establishment of the global and town-level ETRs, it is crucial that the EDCs have an adequate number of DAs in place at the onset of an emergency event. The earlier an EDC can assess FPS trouble spots and help make available that information to towns, the better towns can coordinate their own storm response and ensure public safety; the same can be said for accurate information regarding blocked roads and expected restoration times for customers. ESF-12 Annex, pp. 20-22.

The Authority finds that Eversource failed to comply with the established performance standard because it did not have an adequate number of DAs within the first 48 hours to timely complete the required damage assessment and to provide adequate and timely information to the public. For example, Eversource struggled to manage the emergency life safety calls and blocked roads lists, especially early on. See, e.g., Eversource Response to Interrogatory RSR-27, Attachment 3, pp. 16, 18, 34, and 48; Eversource Response to Interrogatory LCG-136. With only 160 damage assessors available on August 5, 2020 (i.e., fewer than half of the peak number of damage assessors deployed by Eversource on August 9, 2020), Eversource was too overwhelmed to handle all of the FPS-2 calls and to perform restoration damage assessment in the first 48 hours of its storm response. The Authority finds that Eversource's performance in damage assessment and procuring adequate damage assessment resources was deficient, inadequate, and unreasonable. Further, the Authority finds that Eversource acted imprudently in failing to secure an adequate

[34] ETRs are measured from the end of a storm. Tropical Storm Isaias ebbed just after midnight on August 4, 2020; therefore, a six (6) day ETR would end at midnight on August 10, 2020.

number of DAs in place at the start of the event to perform the crucial task of damage assessment.[35]

Regarding the communication of global and town ETRs, Eversource released its global ETR on August 6, 2020, thereby meeting the standard of providing a global ETR within 48 hours from the end of the storm. Eversource 30-Day Event Report, p. 74. Eversource's global ETR was seven (7) days, ending 11:59 p.m., Tuesday, August 11, 2020. Id.; Eversource Response to Interrogatory AG-17, Attachment 3, p. 15. Eversource achieved substantial restoration by that date. Eversource 30-Day Event Report, p. 75.

On Saturday, August 8, 2020, four days after the storm, Eversource began releasing town-specific restoration estimates to its customers and the public. Eversource Response to Interrogatory AG-17, Attachment 3, p. 25. Subsequently, Eversource failed to achieve substantial restoration by the dates established in the town-based ETRs for 31 towns. The testimony of the intervening municipalities evidences that Eversource: (1) failed to set reasonable expectations; (2) failed to deliver results consistent with or exceeding those expectations; and (3) failed to provide accurate, timely, and consistent information. Tr. 12/14/20, pp. 42, 49, 50, 54, 55, 62, 63, 65, 68, 71, 73; Tr. 12/15/20, pp. 310, 311, 406, and 419.

Specifically, the First Selectman of New Canaan stated that:

> New Canaan residents were not able to report outages to Eversource and our EOC team and public works crews were unable to obtain timely, reliable information about outages in New Canaan and about plans by Eversource crews or contract crews to arrive in New Canaan to open roads and begin restoration of power.
>
> Tr. 12/14/20, p. 11.

First Selectman Rosenthal from Newtown, stated:

> I was able to compel our liaison on Friday evening to see if he could get me a list of roads as we had gotten in past storm events, or list of areas of town where crews would be working. He did procure that, and I shared that in my evening phone call to the community, again, in rough area where crews would be working overnight. Regrettably, I woke up in the morning only to find that that was not accurate information. The reason I know it wasn't accurate, is my area, my street was actually part of that and I did not wake up with power the next morning.
>
> Tr. 12/14/20, p. 32.

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[35] Unlike UI, Eversource's ERP does not identify a specific number or range of damage assessors appropriate for each storm event classification. Accordingly, the Authority will require Eversource to specify, in its next ERP filed for PURA's approval, the range of damage assessors needed to perform adequate and reliable damage assessment.

Testimony from First Selectman Marconi of Ridgefield and First Selectman Del Monaco of New Fairfield shared similar experiences to that relayed by First Selectman Rosenthal, wherein residents had reported outages to Eversource but were provided erroneous restoration updates. Id., pp. 62, 68, 114. First Selectman Rosenthal of Newtown stated that his town level ETR was not met. Id., p. 73.

Regarding the timeliness of relevant information, First Selectman Del Monaco stated the town received its first specific set of outage information on August 9, 2020. Tr. 12/14/20, p. 29. First Selectman Marconi stated that the communications he received had no useful information from Eversource to pass on to his residents. Id., p. 105. First Selectman Kellogg also reported that information with any actionable quality was not made available until several days following the storm. Tr. 12/15/20, pp. 298, 317, and 346.

The Authority finds that, while Eversource ultimately met the applicable global ETR standard, Eversource failed to provide accurate, timely, and consistent restoration information to customers, especially with any reasonable degree of granularity. Specifically, Eversource's delay in issuing town-specific ETRs until four (4) days after the storm was not reasonable, especially given the wide-spread power outages. This lack of communication from Eversource during this critical period post-storm only served to exacerbate the chaos and confusion surrounding Eversource's response. The delay in issuing town-specific ETRs may have been mitigated, to some extent, had the ETRs ultimately proven accurate. However, for 31 towns, Eversource failed to meet the stated substantial restoration deadline.

Further, for the reasons stated above and based on the testimony and experience of the Intervenor towns, as well as public comment from customers and other town officials, the Authority finds that Eversource failed to set reasonable expectations with the towns and did not deliver results consistent with or exceeding those expectations. For testimony, see Tr. 12/14/20, pp. 65, 68, 71, 73; Tr. 12/15/20, pp. 311 and 419. For public comment, see Tr. 10/21/20, pp. 12, 15-18, 23, 28, and 29; Tr. 10/22/20, pp. 11, 12, and 15-18. The Authority finds that Eversource's performance in both communicating accurate, timely, and consistent restoration information to customers and with respect to setting and meeting expectations with stakeholders was deficient, inadequate, and unreasonable. Further, the Authority finds that Eversource acted imprudently through these failures of communication and in meeting the standards established in its ERP.

Regarding UI's damage assessment process, the Authority finds that UI performed in a generally acceptable manner. *First*, UI released both its global and town-specific ETRs within 48 hours, consistent with the ERP standard. *Second*, UI ultimately met its established global ETR. Further, complaints regarding the timeliness and accuracy of communications with customers and municipalities were not pervasive. This indicates that UI brought adequate resources to bear for damage assessment, leading to a reasonable and reasonably accurate ETR. In addition, UI's initial level of 50–60 DAs was consistent with the range specified in its ERP. Consequently, the record demonstrates that UI met applicable performance standards and acted prudently in assessing damage resulting from the tropical storm.

However, the Authority notes that UI does not track whether it meets town-specific ETRs. This information is crucial for evaluating UI's storm response; therefore, the Authority will order UI to track and report conformance with town-level ETRs in future 30-Day Storm Reports. The Authority will further order UI to define in its ERP substantial completion as 99% customers restored.

D. MUNICIPAL LIAISONS AND MAKE SAFE PROTOCOL

1. Standards of Acceptable Performance

a. Liaison Program

The Performance Standards Decision requires that an EDC perform its responsibilities in conjunction with state agencies, municipalities, other utilities, and the general public. Performance Standards Decision, Appendix A, p. 2. Specifically standard 2.b.ii states that an EDC shall establish written communication protocols for timely and accurate information exchange between the EDC and any pre-determined local agency, such as public safety officials and agencies, local elected officials, and others that the EDC deems appropriate during emergency events impacting multiple jurisdictions. Id., p. 5.

The Performance Standards Decision also requires that the EDCs ensure they have adequate staffing for communications during major storm events, particularly for specific stakeholder categories, such as media, local officials, and customers. Performance Standards Decision, Appendix A, p. 3. The EDCs are required to escalate these staffing levels based on the event level classifications in their ERPs. Id.

Eversource's ERP states that, much like with respect to field restoration crews, the company must ensure that a sufficient number of resources are secured in a timely manner to support efficient restoration. Eversource ERP, p. 13. Eversource's ERP further states that the point of the municipal (and other public official) liaison is *to ensure that there is a coordination of effort* between municipal governments, other utilities, and entities responding to storms. Id., p. 50. It also states that the municipal liaison must provide real-time support in the form of information, notifications, and coordination with municipal officials; this communication includes information about damage assessment, blocked roads, and emergent priorities, which must be sufficiently detailed so as to enable towns to perform their emergency response functions. Id., p. 5, 51-52, and 60. Elsewhere in Eversource's ERP, the plan requires that Eversource share timely and accurate information with communities and that it partner with municipalities so as to integrate municipal priorities into its response and recovery plans. Id., p. 13. The same section of the ERP also requires Eversource to set reasonable expectations, provide that information to the towns, and then to meet or exceed those expectations. Id.

Its ERP makes clear that Eversource understands that communication to municipal partners, state officials, and the public during emergency events has a profound impact on actions taken by customers, emergency responders, and government entities. In fact, Eversource commits, through its ERP, to providing consistent and accurate information throughout the course of an emergency. Id., p. 60. Further, in the Promulgation of the Plan, President of Regional Electric Operations,

Craig A. Hallstrom, states that, "[t]imely and accurate information for our customers and other stakeholders is just as important as a safe and prompt restoration of service." Id., p. 7.

Similarly, UI's ERP states that it has a responsibility to ensure that communications with the public, customers, and state and local government officials provide accurate and timely updates about system conditions and restoration activities. UI ERP, p. 11. UI's ERP also states that governmental and regulatory authorities rely on effective communications so that they can fulfill their essential emergency response functions; the document further acknowledges that major disasters may require the company's coordination with state and local governmental agencies (among other entities). Id., p. 12. UI's ERP describes the required coordination standard between UI and outside stakeholders for timely and effective emergency response. Id., p. 9.

The ESF-12 Annex is an annex to the State Response Framework adopted by the State of Connecticut. The ESF-12 Annex specifies certain roles and responsibilities for the restoration of critical public services. ESF-12 Annex, p. 5. As members of the ESF-12, the EDCs have been delegated the following responsibilities related to information sharing with municipalities during an emergency response:

- Provide timely, detailed and accurate information via utility liaisons to the state EOC and affected municipalities, including:
  - Status of any pre-designated critical facilities for each of the municipalities within the provider's franchise area;
  - projected work locations for the restoration crews within the cities and towns (crew locations);
  - status of affected circuits, where applicable;
  - status of expected arrivals of outside crews;
  - estimate of the number of customers affected; and
  - reports from outage reporting tools such as an Outage Management System and a Global Positioning System as well as a web page view that depict the location of affected areas by town.
- This information shall be passed from the provider to the state and municipalities on a regular basis.

ESF-12 Annex, p. 21.

The ESF-12 Annex specifies other responsibilities of the EDCs as well, including:

- Provide a make safe crew or other resource if requested by town.
- Allowing town officials the ability to view web-based map information regarding electric outages through the Liaison, or if those are unavailable, through a screen shot or other method.
- EDCs must participate in daily review of existing critical facility priorities with municipal officials. EDCs must provide daily work plan back to municipalities updates throughout the day as work is accomplished and priorities shift.

- Report the status of pre-designated critical facilities on a regular basis throughout the day to the municipality.

ESF-12 Annex, pp. 22-23.

The ESF-12 Annex also sets the broader expectation that the EDCs receive and give preference to municipal critical facilities, that EDCs and municipalities collaborate to provide daily restoration and response work plans, and that EDCs report to municipalities when work is completed. ESF-12 Annex, p. 29.

b. Make Safe Protocol

The Make Safe/Blocked Road protocol (Protocol) is formalized in the ESF-12 Annex and defines blocked roads as well as "Make Safe" blocked roads. ESF-12 Annex, pp. 35-42. A "blocked road" is a road that meets two criteria: (1) it is impassable to emergency vehicles; and (2) there is no other reasonable means of access to an area. ESF-12 Annex, p. 42. A blocked road may be caused by any number of obstacles, such as trees, snow, or utility and communications equipment. Id. A "Make Safe" blocked road is a specific subset of "blocked road" wherein a utility company's facilities are involved in the hindering of emergency access. Id.

The clearing of blocked roads is a high priority for all communities during storm response, particularly within the first 48 hours, to allow municipal and state emergency vehicle access and other life safety actions so that officials can perform their duties to protect public safety. Id., p. 35. Town public works departments, the state Department of Transportation, and utility companies with facilities in the public right-of-way must work in concert and in sequence to clear blocked roads. Id. Since multiple entities are involved, communications among them are crucial for the timely clearing of blocked roads. ESF-12 Annex, p. 35. If an electric distribution company's facilities are involved in a Make Safe blocked road, it is necessary for safety reasons that the electric company resolve the electrical hazard first. Id., pp. 36 and 42.

A municipality is tasked with collecting and prioritizing blocked roads. Id., p. 36. Make Safe locations are then presented to the utility in a standardized blocked road form. Id. After receipt of the forms, the EDCs are to then assign crews to work on the list based on priorities set by the town. Id. The Protocol contemplates that the standard practice is that a Make Safe crew is assigned to a municipality and that the crew will remain in the municipality performing Make Safe work. Id., p. 35. The Protocol allows for flexibility in recognizing that Make Safe crews may be pulled for emergent priorities, but that if this occurs, it must be communicated to the municipality along with a projection for estimated time for the crew to return. Id.

The ESF-12 Annex provides a standard template for towns to prioritize blocked roads, derived from the priority categories defined in Table 17 below.

Table 17. ESF-12 Make Safe Protocol – Priority Categories

Priority	No.	Definition
High	1	Support to Search and Rescue and other lifesaving resources
	2	Critical life sustaining facilities (i.e. hospitals, nursing homes, other)
	3	Additional life sustaining facilities (i.e. emergency feeding and sheltering sites, local distribution points, other)
	4	Critical community support facilities (I.e. police, fire, EMS, and emergency management sites, other)
	5	Longer term sustaining facilities (I.e. water treatment and sewage facilities, electrical facilities critical for power restoration, other)
	6	Remaining critical facilities (I.e. critical communication nodes)
Medium	7	Major traffic routes including interstate highways and ramps
	8	Major waterways essential to commerce and major flood drainage ways
Low	9	Other roads

ESF-12 Annex, p. 37.

The Protocol acknowledges that the municipality does not manage, nor supervise, the EDC assigned crew; this responsibility remains with the company. Id. However, in recognition of the importance to public safety of the efficient and timely coordination of activities and the necessity for electrical hazards to be resolved first, communication is stressed as a requirement numerous times throughout the Protocol. Id., 35-37.

Recognizing the fact that municipalities do not directly supervise utility Make Safe crews, the difficulties with multiple entities performing road clearing work, and the need for EDCs to resolve hazards first, the Protocol outlines two ways for EDCs to perform Make Safe work, namely using Task Force resources or a Strike Team. Id., p. 36.

The Task Force process involves coordinating town public works and utility Make Safe crews at each location and performing the work in sequence, but together, before proceeding on to the next location. Id. This process requires the utility crews to wait while town public works crews work, which results in down time for utility crews waiting to move to the next location, ultimately, keeping utility crews from performing restoration work. Id.

The Strike Team process allows each entity to work independently and proceed from location to location according to prescribed sequences in the blocked road form. Id. Because crews are independent, and town crews must wait until electrical hazards are resolved, this process *requires* timely and accurate resolution of the hazard by the EDC followed by timely communication of that resolution from the EDCs to the town emergency operations center. Id. Thus, it follows that if EDC Make Safe crews fail to timely address the list provided by the town, and if that information is not provided in an accurate and timely manner to the town, then town crews will simply be unable to work at those locations.

One of the response standards of the EDCs outlined in the ESF-12 Annex is to:

> designate a Make Safe Crew or representative to each municipality (after the municipality has opened its EOC) that has requested a Make Safe Task Force or Strike Team and has declared a state of emergency, and inform the municipal EMD and EOC of the assignment, in accordance with attached Make Safe/Blocked Roads protocol.
>
> ESF-12 Annex, p. 22.

Under this standard, an EDC must perform two actions after a municipality has opened its EOC, requested a resource, and declared a state of emergency. The two actions are to: (1) designate a crew or representative; and (2) inform the municipal contact of the assignment.

Notably, the ESF-12 Annex requires that UI provide two dedicated crews to each municipality that makes a request for road clearing assistance: a dedicated line construction crew and a dedicated tree clearance crew. Id., p. 25.

Eversource, meanwhile, is required to provide a "dedicated resource" to each town upon request to assist in Make Safe road clearing activities. Id., p. 24. It is clear, however, that this dedicated resource is to be *in addition to* the town liaison that is to be provided to each town upon request, as both are separately contemplated and called for in the Annex. Id., pp. 24-25.

Eversource codifies its responsibility to follow the Protocol in its ERP under the section addressing response and restoration guidelines. Eversource ERP, p. 23. UI also codifies its responsibility to follow the Protocol in its ERP. UI ERP, pp. 18 and 42.

The ESF-12 Annex also dictates the following general response priorities for public service companies. The first priority includes addressing life threatening situations and public health and safety incidents, such as: cutting down and/or energizing primary voltage distribution lines, police and fire life safety calls as reported by the town, and removal of electrical hazards from blocked roads. ESF-12 Annex, p. 20. The second priority includes restoration to substations, transmission lines, and critical facilities. Id. The third priority includes restoration to single- and three-phase laterals. Id. Finally, the fourth priority includes restoration of distribution transformers and services. Id. There is an understanding that flexibility among the priorities depending on circumstances and that addressing lower priorities before certain higher priorities may be appropriate if the action serves higher priority needs. Id.

Regarding the general response priorities, Eversource and UI classify life safety calls received from the public or town emergency responders into three categories shown in Table 18 below.

Table 18. Life Safety Emergency Priority Calls

Priority 1 (FPS 1)	Immediate life threatening situation
Priority 2 (FPS 2)	A situation hindering emergency operations (e.g., firefighting or rescue) but is not immediately life threatening but may prevent future rescue or emergency responders from responding to a threat. A Make Safe blocked road is an example.
Priority 3 (FPS 3)	Any electrical hazard such as downed wires, with no immediate threat to life or property.

Eversource 30-Day Event Report, p. 66; UI Response to Interrogatory LCG-19.

The call priorities outlined in the above table generally correspond to the first priority category specified in the ESF-12 Annex and discussed above, which includes life threatening situations and public health and safety incidents. FPS-1 calls are always the first priority. Eversource ERP, p. 37; UI ERP p. 8. FPS-2 calls generally overlap with Make Safe incidents and FPS-3 events are all other wires down incidents, as the definition is essentially that of a Make Safe Blocked Road.

2. Experience of the Municipalities

Multiple municipalities expressed frustration that Eversource was not following the Make Safe process by providing a crew to address blocked roads. DeLong PFT, pp. 5-7. The first selectmen of the Towns of Bethel, New Fairfield, Newtown, and Ridgefield (Four Towns) testified that Eversource failed to provide Make Safe crews to clear blocked roads. Four Towns PFT, p. 6.

First Selectman Kellogg testified on behalf of the Town of Monroe (Monroe) that there existed "numerous hazardous conditions" involving Eversource equipment that caused several town and state roads to be blocked. Kellogg PFT, p. 1. Mr. Kellogg asserted that Eversource failed to perform its necessary public safety and life threatening obligations. Id. Mr. Kellogg also testified that Eversource did not provide a Make Safe crew to pair with town public works crew until August 7, 2020. Id. This delayed resource resulted in it taking up to seven days to clear the 61 blocked roadways in the town. Id.

Regarding the information provided to Monroe officials by the Eversource liaison, Mr. Kellogg testified that little to no actionable information was made available. Id., p. 2. For multiple days, Eversource did not provide the town the number and location of crews assigned during any operational period. Id. Eversource did not provide regular updates to Monroe regarding damage assessment activities. Tr. 12/15/20, p. 297. Eversource did not provide regular updates on progress regarding blocked roads for several days. Id., p. 298. Eversource did not provide regular updates to Monroe when critical facilities were restored. Id., p. 299. Eversource did not provide to the town if and where any wire down guards were deployed to the town. Tr. 12/15/20, p. 312.

Eversource did not provide Monroe with its rationale for how it was prioritizing restoration and road clearing activities. Id. Monroe's expectation, based on past emergency events, was for regular updates to be tied to operational periods and that any provided information would include Eversource's action plan in the town, what roads would be addressed, and what restoration activities would be taking place. Eversource did not meet these expectations. Tr. 12/15/20, p. 303.

Further, when Monroe raised emerging public and life safety priorities, Eversource did not provide updates. Tr. 12/15/20, pp. 300-301, 305-306. Monroe attempted to prioritize different life safety incidents with Eversource, and received no daily priority work plan, updates to priorities, or confirmation of completed work from Eversource. Id. Monroe relayed incidents where roads were inaccessible or impassable by emergency responders that it claimed were not treated by Eversource according to the blocked road protocol. Tr. 12/15/20, pp. 327-329.

Testimony by First Selectman Marpe on behalf of Westport (Westport) argued that Eversource did not meet its obligations to the town because of delayed and uncoordinated Make Safe work, poor communications with Westport customers, and lack of information and contact. Marpe PFT, pp. 2-3. First Selectman Marpe also testified that communications with Eversource did not include the number and location of restoration crews or damage assessors or wire guards working in the town on a specific day. Tr. 12/15/20, pp. 386 and 421. Westport also was not assigned a dedicated Make Safe crew until Thursday August 6, 2020. Tr. 12/15/20, p. 390. Even once the assignment was finally made, Westport did not receive specific updates regarding the number or location of Make Safe crews once they did arrive. Tr. 12/15/20, p. 387. Westport did not receive updates from Eversource about planned or completed work regarding critical facilities and found out about restorations through its own observations. Id., p. 388.

Westport expected to receive regular updates on number and location of restoration and Make Safe crews working in the town and their priorities. Tr. 12/15/20, p. 398. The town lost valuable road clearing time waiting for Eversource to provide resources to addressed downed wires. Tr. 12/15/20, p. 404. When Eversource did perform Make Safe road clearing work, it did not share that information with Westport until they had a dedicated crew. Tr. 12/15/20, pp. 433 and 436.

Testimony was also offered by the first selectmen of the Four Towns, which stated that Eversource's response to Tropical Storm Isaias was unacceptable and inadequate. Four Towns PFT, p. 3. The Four Towns suffered tens to hundreds of closed roads due to downed trees and Eversource facilities. Id., pp. 4-6. Dedicated Make Safe crews were not provided to three of the towns until August 7, 2020, and not until August 6, 2020 for one. Id., Tr. 12/14/20, pp. 36, 44, 51.

Regarding information provided to each of the Four Towns by Eversource, Eversource did not provide daily updates with information specific to the town regarding number and location of field crews, such as restoration crews, damage assessors, or wire guards, until the end of restoration. Tr. 12/14/20, pp. 24-25, 28-29, 31, 34, 67, 70. Eversource did not provide timely information on specific Make Safe activities it had been performing or planned to perform, and even later once the information was

shared, it was at times inaccurate. Id., pp. 25-26, 29, 32, 35. Towns found out about cleared roads not from Eversource, but from their own public works crews. Id., p. 26, 30, 35. Eversource did not provide regular updates about restoration of critical facilities in the towns, plans to address critical facilities, or changes to any planned work. Id., p. 27. Eversource did not provide daily action plans for the towns. Tr. 12/14/20, pp. 109 and 113.

According to testimony by the Four Towns, Eversource did not properly prioritize the restoration of critical town facilities and priority locations. Notably, First Selectman Knickerbocker testified that the Bethel police station lost electric service from Eversource and was operating on an emergency generator for six days until it was restored by Eversource on August 10, 2020. Four Towns PFT, p. 11. Bethel officials made daily requests that Eversource restore power to the police station, which the town stated were ignored until August 10, 2020. Id. In New Fairfield, First Selectman Del Monaco reported that Eversource did not properly prioritize restoration to a resident who had a medical condition needing proper air conditioning during hot summer days and was without power for multiple days. Id., p. 12. First Selectman Del Monaco further reported that Eversource did not prioritize an over-55 residential community as requested by the town, and that the facility ended up as the last set of customers restored in the town. Id., 12-13. New Fairfield also testified that restoration activities for the town's high school and middle school were not completed until August 9, 2020. Id., p. 13. According to First Selectman Rosenthal of Newtown, Eversource failed to timely restore power to two senior living facilities. Id., p. 13. According to First Selectman Marconi of Ridgefield, Eversource failed to prioritize and timely restore a senior living facility, which housed residents with medical equipment needing electricity to power medical equipment. Id., p. 14.

During the Authority's public hearings, multiple towns testified that information provided to towns and its residents was neither timely nor accurate. Tr. 12/14/20, pp. 42, 49, 50, 54, 55, 62, and 63; Tr. 12/15/20, pp. 310 and 406. Multiple towns testified that adequate coordination was not facilitated by Eversource. Tr. 12/14/20, pp. 42, 50, 55; Tr. 12/15/20, pp. 310-311 and 408-409. Multiple town First Selectmen testified that Eversource did not properly prioritize public safety. Tr. 12/14/20, pp. 43, 50, 55, 64; Tr. 12/15/20, p. 311. Multiple towns testified that while liaisons provided by Eversource were on the whole very professional and sought to help, they simply could not provide actionable information to the towns. Tr. 12/14/20, pp. 37 and 60. Multiple towns testified that Eversource did not properly update the towns on restoration or planned work regarding critical town facilities. Tr. 12/14/20, pp. 37-39.

Multiple towns testified that Eversource did not set or deliver on reasonable expectations. Tr. 12/14/20, pp. 65, 68, 71, 73; Tr. 12/15/20, pp. 311 and 419. Multiple towns testified that Eversource did not appropriately incorporate town priorities into its response action plan, and, if it eventually did, it was nearly a week into the response. Tr. 12/14/20, pp. 65, 68, 71, 73.

In post-event meetings between town officials and Eversource, the results were similar and consistent regarding the liaison program and Make Safe coordination. Eversource Response to Interrogatory LCG-476, Attachment 1, pp. 1-12. Towns consistently expressed frustration with poor communication and a lack of real time

reporting by Eversource. Id. Residents look to town officials for information about outages and restoration and the town liaisons were not provided relevant information by Eversource management to share with towns. Id. Towns sought information regarding areas of town without power, and the number and time of crews working in town. Id.

The towns also expressed that Eversource did not properly prioritize or efficiently coordinate the clearing of roads. Eversource Response to Interrogatory LCG-476, Attachment 1, p. 12. Towns relayed experiences where the company did not or could not prioritize emergency situations. Id., pp. 15, 16, 18. Many towns felt Eversource dedicated too many resources to restoration activities while towns were paralyzed with blocked roads. Id., pp. 12-26. A vast number of towns stressed the importance of having Make Safe crews dedicated to towns from the onset of a storm. Id.

With respect to the UI service territory, First Selectman David Bindelglass of the Town of Easton (Easton) testified that due to lapses in communications by UI, Easton's public works crews waited several hours on the evening of August 4, 2020, for UI crews, which never arrived. Tr. 12/15/20, pp. 391–392. That problem was resolved, however, first thing on the morning of Wednesday, August 5, 2020. Id., p. 391. With the exception of the aforementioned incident, the testimony provided by First Selectman Bindelglass seems to indicate that Easton's experience coordinating Make Safe work with UI was acceptable. Id., pp. 393-394. First Selectman Bindelglass' testimony also seems to indicate that communications about Make Safe activities with UI's town liaisons was accurate, timely, and consistent. Id., pp. 395-397, 411. Further, Easton received a number of specific updates from its UI liaison with specific information about restoration activities, such as the number of crews dispatched and the locations where they were working. Id., p. 395.

The City of Bridgeport's Director of Emergency Management and Homeland Security Scott Appleby (Bridgeport) also provided testimony regarding UI's coordination, Make Safe work, and communications. In its testimony, Bridgeport raised a significant issue it experienced with UI in response to Tropical Storm Isaias that involved a set of large senior independent living homes that were vulnerable to outages. Tr. 12/23/20, p. 1501. Bridgeport's testimony states that it raised its concern regarding the senior living community with UI on August 5, 2020, but that it took until Friday, August 7, 2020, for the homes to have their power restored. Id., pp. 1501-1502.

Bridgeport also noted a lack of coordination from UI when mustering Make Safe crews and city public works crews when, on the morning of August 5, 2020, the assigned UI crew was at the opposite side of town and was late to the muster point by at least an hour. Id., p. 1509. Bridgeport also noted that crews assigned to Make Safe duties were often taken away from the assignment and moved to other assignments without proper notification provided to Bridgeport officials. Id., p. 1505.

Bridgeport also expressed frustration with the fact that it took two or three days for UI to provide outage information about residents to the city, especially those facing medical or other hardships. Id., p. 1524. Bridgeport also opined that Tropical Storm Isaias was different than larger past ones like Superstorm Sandy, in that UI's field crew numbers were potentially too few in the first two days to manage all of the damage spots. Id.

Nonetheless, Bridgeport noted that the liaison assigned to the city was very communicative and that the relationship was good, but that information was not given to the liaison by UI's incident command in a timely manner. Id., pp. 1503-1504. Bridgeport testified that UI did not provide timely or accurate restoration information to the city. Id., pp. 1511-1512. Bridgeport also testified that UI did not provide timely or actionable information until more than 48 hours after the onset of Tropical Storm Isaias. Id., p. 1512. However, Bridgeport did believe that UI generally coordinated well with the city and made public safety a priority. Id.

CCM, in coordination with the OCC and DEEP, conducted a survey of municipalities in October and November 2020. OCC PFT, p. 2; CCM PFT, p. 2. The survey included responses from 45 municipalities. OCC PFT, p. 5. Of the survey respondents, 40 towns were from Eversource's service territory, 4 were from UI's service territory, and 1 had a municipal electric department. Id., Exhibit B. Most of the comments received from municipalities located within UI's territory were neutral or positive regarding UI's response to Tropical Storm Isaias. Id. Municipalities in Eversource's territory overwhelmingly thought Eversource had performed the same or worse in Tropical Storm Isaias as in past storms. Id. A notable trend reported by those towns include reports that Eversource communications were untimely, useless, and often inaccurate. Id. Additionally, the Eversource town respondents reported that liaisons were unavailable or unhelpful due to power/network outages. Id. There were complaints of inaccurate or unavailable outage information, inaccurate or unavailable road clearing information, and inaccurate or unavailable crew restoration information. Another notable complaint was the lack of dedicated Make Safe crews to prioritize road clearing. Id. Additionally, there were complaints that Eversource's response was minimal in the early stages of response. Id.

3. Eversource Performance – Liaison Program

Eversource activates its Liaison Organization to manage storm response communications between the company and state and local governments in accord with section 3.7 of its ERP. Eversource ERP, p. 50. The make-up of the Liaison Organization starts with the Liaison Officer, who leads the organization and who reports directly to the Incident Commander. Id. The Liaison Organization itself comprises three Liaison Units, each headed by a Liaison Unit Leader and with individual Community Liaisons (Liaison) composing the Liaison Units. Id., p. 50. While the Liaison Officer reports directly to the Incident Commander, the position also coordinates with the Communications Officer in the Communications Organization to develop a communications plan for the event. Id., p. 51. The Liaison Unit Leaders manage the individual Community Liaisons with the Liaison Officer. Id. The individual Community Liaisons are the direct link with towns and municipalities, providing the conduit for real-time information, support, notification, coordination, and communications between municipal officials and the company for system restoration, damage assessment data, blocked roads, and emergent priorities. Eversource ERP, p. 51.

To understand the make-up of the Liaison Organization, one must first consider briefly Eversource's community relations team under normal operations. Eversource has twelve Community Relations Specialists who serve as the single point of contact for

both state and local governments, and community and business organizations during Blue Sky Day operations. Eversource Response to Interrogatory LCG-468. During Black Sky Day operations, however, the Community Relations Specialists perform storm duties by acting as either community (or town) Liaisons, unit leaders, or Liaison coordinators.[36] Eversource Response to Interrogatories LCG-468 and 472. During Blue Sky Day operations, the twelve Community Relations Specialists are each assigned as the point of contact for at least one town in Eversource's service territory. Eversource Response to Interrogatory LCG-468.

Prior to the onset of Tropical Storm Isaias, these twelve Community Relations Specialists reached out to all municipalities and sent an initial emergency preparedness briefing on July 31, 2020. Id. On Monday August 3, 2020, Eversource made the storm duty assignment of 133 employees to act as Liaisons to supplement the Community Relation Specialists during Tropical Storm Isaias. Arsego, Andino, & Hopkins-Staten PFT, p. 12. Collectively, these employees made up the initial staffing of the Liaison Organization that was activated according to the ERP in response to Tropical Storm Isaias. Id. Not all of these 133 employees appeared to be active during Isaias, however, as Eversource separately reported only a peak number of 103 Liaisons from Connecticut that were on duty at some point from August 4, 2020, through August 12, 2020. Eversource Late Filed Exhibit No. 30, Attachment 1.

Among the first things Liaisons do to communicate with towns is to send out emergency preparedness briefings prior to the event. Eversource Response to Interrogatory LCG-144. Eversource provided one preparedness briefing that was distributed to municipalities on July 31, 2020, which, as noted in Section IV.A., was prior to the escalation of the likelihood of tropical storm-force winds. Id., Attachment 1, pp. 1-2; Eversource Response to Interrogatory AG-17, Attachment 3, pp. 1-2. Eversource provided no other emergency preparedness briefings from July 31, 2020, through August 4, 2020. Eversource Response to Interrogatory AG-17, Attachment 3, pp. 1-2. Eversource provided its first emergency briefing (preparedness briefings occur prior to a storm; once a storm hits those change to "emergency briefings") on August 4, 2020, at 6:15 p.m. Id., p. 3. Starting on August 5, 2020, Eversource provided three emergency briefings per day. Id., pp. 6-17.

On August 8, 2020, Eversource allegedly supplemented its initial (reported) 133 Liaisons with 85 mutual aid Liaisons from its affiliate companies in Massachusetts and New Hampshire. Arsego, Andino, & Hopkins-Staten PFT, p. 12; Eversource Response to Interrogatory LCG-470. As a result, Eversource claimed to have available throughout its storm response phase a total of 218 (133 + 85) assigned Liaisons. However, Eversource separately reported Liaison assignments that included a total of only 191 Liaisons during its response to Tropical Storm Isaias. Eversource Response to Interrogatory OCC-10, Attachment 1. Therefore, the report claiming 218 assigned Lisaisons appears to be erroneous, or at least misleading, given that Eversource separately provided daily Liaison assignments for both Connecticut-based Liaisons and

[36] Blue Sky Day operations refers to a normal and routine operating day for an electric distribution company. Black Sky Day operations refers to emergency response operations after an emergency event as defined in Conn. Gen. Stat. § 16-32e.

mutual aid Liaisons from Massachusetts and New Hampshire that show a maximum of 165 on-duty, and anywhere from 99 to 103 on-duty Liaisons from August 4 through August 7, 2020. Eversource Late Filed Exhibit No. 30. This latter information is provided in Table 19 below.

Table 19. Liaisons Performing Storm Duties during Tropical Storm Isaias

Date	Eversource CT Liaisons on Storm Duty	Mutual Aid Liaisons on Storm Duty
August 4	103	0
August 5	101	0
August 6	99	0
August 7	99	0
August 8	99	8
August 9	100	64
August 10	98	67
August 11	97	61
August 12	98	5

Eversource Late Filed Exhibit No. 30.

Generally, Liaisons provided daily coverage from approximately 7:00 a.m. until 10:00 p.m. Eversource Response to Interrogatory RSR-27, Attachment 3, p. 341. Eversource did not provide overnight liaison coverage, but instead gave to municipalities a landline telephone number for the reporting of issues that arose outside of the standard hours. Id.

All towns were assigned a primary Liaison to be the main point of contact with the municipality. Eversource Response to Interrogatory OCC-10, Attachment 1. Most towns were also assigned one or more supplemental Liaisons to assist the primary Liaison, with 47 towns receiving only the primary Liaison; 52 receiving a primary Liaison and one supplemental Liaison; 28 receiving a primary Liaison and two supplemental Liaisons; 18 receiving a primary and three supplemental Liaisons; and 4 receiving a primary and four supplemental Liaisons. Eversource Response to Interrogatory OCC-10, Attachment 1. Eversource did not provide information about daily assignments of supplemental Liaisons.

Although each town received at least one Liaison, nearly half of the supplemental and primary Liaisons were assigned to more than one town. Table 20 below shows how many Liaisons had responsibilities for more than one town.

Table 20. Primary and Supplemental Liaison Assignments by Number of Towns

Number of Liaisons	Number of Towns Assigned
95	1
62	2
11	3
8	4
4	5
1	6
1	7
1	9

Eversource Response to Interrogatory OCC-10, Attachment 1.

On average, approximately half of all Liaisons were assigned to multiple towns, with 26 acting as either the primary or supplemental Liaison for 3 or more towns and seven covering 5 or more towns. Id. Table 21 below shows the number of town assignments for primary Liaisons. Forty-four of the 96 primary Liaisons served as a primary Liaison for more than one town. Id.

Table 21. Primary Liaison Assignments by Number of Towns

Number of Liaisons	Number of Towns Assigned
52	1
37	2
5	3
2	4

Eversource Response to Interrogatory OCC-010, Attachment 1.

Regarding the background of the Connecticut-based Liaisons, approximately one-quarter (30 of 112) were, as their Blue Sky Day job, Community Relations Specialists, Account Managers, Account Supervisors, or Account Executives; the remaining three-quarters (82 of 112) work in a variety of different backgrounds. Response to Interrogatory LCG-511, Attachment 1. Eversource stated that it selects employees to act as Liaisons who have experience with, or are in a position that has, customer-facing responsibilities, such as attorneys, energy efficiency consultants, and regulatory affairs staff. Response to Interrogatory LCG-152. The table below summarizes the Blue Sky positions of the Liaisons based in Connecticut.

Table 22. Blue Sky Positions of Connecticut-based Liaisons

Position/Department	Number of Liaisons	% of Liaisons
Community Relations	13	12%
Account Executive/Manager/Supervisor	17	15%
Regulatory	6	5%
Energy Efficiency	19	17%
Attorney/Legal Counsel	14	13%
Other	43	38%

Eversource Response to Interrogatory LCG-511, Attachment 1.

Of all the Liaisons used during Tropical Storm Isaias, Eversource provided the prior storms and years experience for 106 of the Connecticut-based Liaisons. Eversource Response to Interrogatory LCG-571, Attachment 1. Twenty percent of the Liaisons had 2 years or less experience, 14% had 3 - 5 years' experience, and 66% had 6 or more years' experience as a Liaison. Eversource Response to Interrogatory LCG-571, Attachment 1.

On August 4, 2020, many Liaisons experienced difficulties in fulfilling their assigned storm responsibilities; approximately half of the on-duty Liaisons were unable to complete basic follow-up communications due to the loss of power, internet connectivity, and phone and cell tower outages at their personal locations. Eversource Response to Interrogatory AG-22. Communications impairment resulted in partial or intermittent communication for both Liaisons and public officials, most working remotely due to COVID-19. Eversource Response to Interrogatory AG-22. This intermittent connectivity was resolved by assigning a replacement Liaison or moving the Liaison to a company facility with connectivity. Id. Eversource stated that community Liaisons who lost power were supposed to travel to an Eversource facility or to find a substitute/replacement Liaison. Id.

In total, 23 towns saw Liaisons reassigned out of the town for a number of reasons, including power or internet outages, attending to family matters, and illness. Eversource Response to Interrogatory RSR-11, Attachment 1. Eversource insisted that at no time was a community provided a Liaison who was inhibited by power loss. Id. Eversource did concede, however, that when town Liaisons experienced lost power, internet connectivity, and/or cellular service, communications between the Liaisons and associated towns served were impaired. Arsego, Andino, & Hopkins-Staten PFT, p. 13. This admission is especially significant given that, specifically during the first three days of the response to Tropical Storm Isaias, approximately 45% of assigned Liaisons lost power or internet. Eversource Response to Interrogatory LCG-169.

The following table lists the number of Liaisons affected by power interruptions who were subsequently relocated to work from Eversource facilities.

Table 23. Eversource Liaison Power Interruptions

Date	Liaisons Interrupted
August 4	59
August 5	60
August 6	57
August 7	46
August 8	38
August 9	26
August 10	14
August 11	13
August 12	9
August 13	6

Eversource Response to Interrogatory LCG-169;
Eversource Response to Interrogatory LCG-150.

One key function of a Liaison is to collect blocked road forms from the municipality to which it is assigned. Eversource ERP, p. 51. Eversource stated that the flow of information among towns, their Liaisons, and the Eversource response management team, broke down during the company's response to Tropical Storm Isaias under the high volume of these requests. Eversource Response to Interrogatory LCG-136. This reporting of blocked roads is a manual process where the Liaison receives a written or emailed form from a town official designating the location and priority ranking of each wire down or blocked road, which is then entered into the company's outage management system (OMS). Id. Eversource claimed that its manual process required Liaisons to validate each instance prior to entry into OMS to ensure that: (1) the information was accurate; (2) the event involved the company's facilities; and (3) the entry was not a duplicate entry already entered into the OMS. Id.

Eversource also encourages town officials to call in blocked roads and FPS-2 and FPS-3 wires down events through dedicated dispatch telephone numbers. Eversource Response to Interrogatory LCG-471. Events called in through the dispatch line are entered by dispatch into OMS. Id. This dual reporting system thus requires written forms to be validated so that duplicate entries are not made into OMS. Id.

Ultimately, Eversource received reports of 2,365 blocked road locations across 130 towns that it validated for entry into OMS. Eversource Response to Interrogatory RSR-41. On August 7, 8, and 9, 2020, Eversource dedicated 36 Liaisons to perform this validation task. Id. Eversource stated that the time it took to complete this task resulted in outdated entries into OMS, since many locations had already been entered by dispatch and addressed by crews. In short, what resulted were entries into OMS that had already been resolved. Eversource Response to Interrogatory LCG-136. This resulted in miscommunications between towns and their Liaisons. Id. Ultimately, Eversource itself concluded in an internal post storm after action report that the process it used during Tropical Storm Isaias for receiving blocked road locations was not adequate to manage the volume it received during Isaias and that it needs more staffing

for future events of a similar or greater magnitude. Eversource Response to Interrogatory LCG-85, Attachment 1, p. 2.

Eversource enables Liaisons to access real-time information from the company's OMS through two main applications: FocalPoint and an internal outage map. Tr. 12/23/20, pp. 1482-1483. FocalPoint provides restoration information such as outage events, crew locations, and crew assignments. Id. The internal outage map enables Liaisons to see information about FPS wires down events that have been recorded in the OMS. Tr. 12/23/20, p. 1483. Liaisons could also access information from the Operations Organization through Liaison Unit Leaders. Eversource Response to Interrogatory LCG-97.

During Tropical Storm Isaias, however, Eversource reported difficulties in conveying restoration information due to a new restoration and recovery strategy that had crews perform restoration along the length of the circuit. Eversource Response to Interrogatory LCG-473. This strategy apparently limits the tracking of specific restoration work information, such as crew dispatch time and trouble spot location, which limited the detailed restoration information that Liaisons could formerly see in FocalPoint. Eversource Response to Interrogatory LCG-473. Under traditional event-based restoration strategy, OMS tracks when and where crews are dispatched in real-time and Liaisons are able to retrieve information and share that information with municipalities. Eversource Response to Interrogatory LCG-473. Therefore, the limitations of Eversource's new restoration and recovery strategy, coupled with the large volume of information being entered into OMS by Eversource as it received FPS calls, led to a lag in OMS data behind real-time events. Id. As a result, Liaisons faced difficulties conveying timely information to municipalities. Id.

a. Analysis and Determination

As discussed above, the relevant standards of acceptable performance for Eversource's Liaison program before, during, and after an emergency include, but are not limited to: providing accurate and timely information to local and state partners; ensuring coordination of response and restoration activities with municipalities; providing information sufficiently detailed to enable town emergency response functions; and securing a sufficient number of resources, including Liaisons, to facilitate response and restoration efforts.

Before the onset of a major storm, Eversource Liaisons typically communicate with local and state officials via phone calls and formal emergency preparedness briefings. Arsego, Andino, & Hopkins-Staten PFT, pp. 11-14. Eversource considers these emergency preparedness and response briefings as a key means to fulfilling its obligations both pre-storm (during preparedness) and post-storm (during response and recovery). Id., pp. 11-14. Nonetheless, Eversource sent only one preparedness briefing before the onset of Tropical Storm Isaias on July 31, 2020. Notably, the July 31, 2020 briefing did not include a predicted event level classification. Eversource released no additional emergency briefings until 6:15 p.m. on August 4, 2020, at which time it released its classification for Tropical Storm Isaias as an Event Level 4.

As outlined in Section IV.A.4., Eversource failed to timely relay to public officials its event level escalations in the briefings. Two hours after the issuance of the August 4, 2020 briefing, Eversource changed its classification to an Event Level 3, but did not share that information in its public briefings until nearly 14 hours later. Eversource Response to Interrogatory AG-17, Attachment 3, p. 5. This pattern repeated when Eversource escalated its event classification to Event Level 2 on the evening of August 5, 2020, but waited 14 hours to share this information in its emergency briefings. All three briefings, on August 4, 5, and 6, 2020, were untimely and inaccurate; thus, failing the relevant standard of acceptable practice.

The Authority further finds that Eversource's Liaison Organization consistently provided untimely and inaccurate information to town officials, resulting in a wholesale failure of the program to meet its obligation to coordinate with municipalities and to provide them with sufficient information to enable their emergency response functions.

Indeed, numerous towns reported that they were unable to receive specific restoration (e.g., crew location, outage locations, daily restoration plans, etc.) and damage assessment information from Eversource. Tr. 12/14/20, pp. 11, 24, 25, 28, 29, 31, 34, 42, 54, 133; Tr. 12/15/20, p. 386; Monroe PFT, p. 2; Westport PFT, p. 3; CCM PFT, p. 5. Towns also reported that the information provided, when provided, was inaccurate. Tr. 12/14/20, p. 32, 114, 115. Additionally, towns reported that Eversource did not provide accurate or timely road clearing information in general, nor in regard to addressing downed poles and wires. Four Towns' Response to Interrogatory RSR-68, p. 2-3; Tr. 12/14/20, pp. 25, 29, 33, 35, 167, 170; Tr. 12/15/20, pp. 387, 436; OCC Brief, Exhibit B. Towns further testified that Eversource failed to communicate reliably and to address municipal priorities, such as the restoration of critical facilities and locations identified by the town as a priority. Tr. 12/14/20, p. 27, 28-30, 33, 35, 38, 39, 48, 109-110, 124 – 125, 128, 130, 132-133; Tr. 12/15/20, p. 388; Monroe PFT, p. 2. Conversely, towns also testified that more timely and actionable information was provided during previous storm responses. Tr. 12/14/20, p. 48, 110, 113. Eversource itself acknowledged that it was unable to provide town-specific information regarding crew locations and damage assessment in the early days of its Tropical Storm Isaias response. Tr. 12/23/20, p. 1449.

Furthermore, on several occasions, Eversource promised work crews that did not materialize, directly impacting the towns' ability to perform their emergency response functions. OCC PFT, Exhibit B; Four Towns PFT, p. 18. On other occasions, Eversource simply failed to respond to the towns' requests for Make Safe crews. Four Towns PFT, pp. 7-10; CCM PFT, p. 6.

As is evidenced by the numerous examples cited above, and the voluminous number of comments and complaints filed in this docket, the information provided by Eversource's Liaison Organization to town officials was neither timely nor accurate and did not allow the town emergency response efforts to function effectively. Ultimately, Eversource failed to meet the established standards of acceptable performance for coordinating with, and providing timely and accurate information to, state and local officials.

Based on the Authority's review and analysis of the record evidence, the root cause of Eversource's failure to provide timely and accurate information to municipalities that would have appropriately enabled the towns' emergency efforts was Eversource's failure to secure an adequate number of Liaisons to meet the needs of towns.

Eversource failed to account for the number of municipal priorities that should have been reasonably expected for an event like Tropical Storm Isaias. Eversource reported that 2,365 blocked road entries were made from 130 towns as a result of the storm. Eversource Response to Interrogatory RSR-41. Eversource also reported that it responded to 2,431 FPS-2 events, 2,273 FPS-3 events, and 860 critical facility restorations over the course of its storm restoration. Eversource 30-Day Event Report, p. 5. While these numbers are significant, the Authority also notes that Tropical Storm Isaias was not particularly unique regarding the number of outages and troubles spots compared with past major storm events. Table 24 compares the total outages, damage locations, and broken poles the company experienced in its past storms with Tropical Storm Isaias.

Table 24. Historical Storm Damage and Outages

	Isaias	Sandy	2011 Nor'easter	Irene
Peak Outages	632,632	496,769	807,228	671,000
Total Outages	1,152,038	856,184	1,358,718	1,000,728
Trouble Spots	21,669	16,460	25,566	16,101
Broken Poles	2,506	2,763	856	707

Eversource 30-Day Event Report, p. 76.

As the table shows, the level of damage roughly aligns with past major storm events. The impetus for the municipal liaison process was the 2011 storms (Nor'easter and Irene), resulting in the current communications and coordination standards of acceptable performance outlined in Section IV.D.1.a. Performance Standards Decision, Appendix A, pp. 5-6; 2011 Storms Decision, p. 34. Based on the evidence provided in the record, the needs of municipalities in response to Tropical Storm Isaias were not dissimilar in scale to previous major storms, which led to the creation of the Liaison Organization. In short, Eversource's Liaison Organization was supposed to be designed to anticipate and respond to just such an event.

Eversource began its storm restoration process with only 133 available Liaisons, of which 103 were active. Further, 20% of its Liaisons had two or less years of experience as a municipal Liaison, and nearly half of the primary Liaisons were assigned to more than one town. For comparison, Eversource deployed approximately 90 and 100 Liaisons during Storm Irene and the 2011 Nor-easter, respectively. 2011 Storms Decision, p. 34. The Authority at that time identified numerous deficiencies in the company's town Liaison program. Id., pp. 34-35. Moreover, Eversource's ERP requires that it: (1) ensures it has sufficient numbers of qualified resources in a timely manner to support an efficient restoration process; and (2) scales up those resources as necessary as the emergency event escalates. Eversource ERP, pp. 13 and 15.

By contrast, it is UI's practice to have three Liaisons available per town in order to provide 24-hour coverage during and after a major storm. Tr. 12/18/20, pp. 713 and 716. As shown in Table 19, *supra*, Eversource never had enough Liaisons to cover all 149 towns it serves; in fact, Eversource only ever had enough active Liaisons (103) to cover 69% of the towns they serve with one Liaison.

Eversource also failed to account for the foreseeable impact of the COVID-19 pandemic on the connectivity of Liaisons working from home. As discussed elsewhere in this Decision, the impact of the pandemic on the utility's operations in Connecticut was known or knowable many months prior to the onset of Tropical Storm Isaias. In fact, Eversource informed towns of the remote work status of their Liaisons, but failed to account for the potential loss of connectivity. Eversource Response to LCG-156, Attachment 1. Indeed, approximately 50% of Liaisons experienced connectivity issues.

The Authority received testimony from municipalities indicating that Liaison substitutions, frequently caused by connectivity issues, proved troublesome. For example, Bethel testified that the municipal liaison process broke down and that Eversource was unresponsive to real-time information being provided by the town. The Authority reviewed Eversource's liaison staffing and found that the Liaison for Bethel had experienced a power outage and was providing support strictly by telephone until a supplemental Liaison with power was provided on August 6, 2020. Eversource Response to Interrogatory RSR-11, Attachment 1. The Authority sought specific information regarding the time of day when Liaisons were replaced and other relevant information that may have shown how Liaisons were inhibited in their ability to perform their roles due to a loss of connectivity, but this was not provided in the information supplied by Eversource. Eversource Response to Interrogatory RSR-11; Response to Interrogatory LCG-169.

Additionally, the Authority notes that a large percentage of the Liaisons used to supplement the Liaison program are not communications or account management professionals. As shown in Table 22, *supra*, roughly 27% of Eversource Liaisons are Community Relations Specialists, Account Manager/Supervisor, Account Executives, or another customer-facing role. Conversely, 83% of UI's municipal liaisons hold permanent positions within the Customer Service department. The Authority finds that this lack of primary experience dealing with communities may have contributed to Eversource's deficient performance. This is not a new or unforeseeable observation; in 2011, the Authority noted that Liaisons need to have a pre-established relationship with towns and that the current structure may not allow for those relationships to develop. 2011 Storms Decision, p. 34.

The Authority also reviewed Eversource's use of mutual aid Liaisons from its New Hampshire and Massachusetts affiliates. Eversource primarily used these non-resident liaisons to provide support to and augment its core liaison staff. Tr. 12/23/20, pp. 1443-1444. Further this was the first time Eversource deployed mutual aid Liaisons from affiliates to support storm restoration in Connecticut. Id., p. 1445. While the Authority understands Eversource's intention in procuring mutual aid Liaisons to support the Connecticut-based Liaisons and primary Liaisons, the company has yet to demonstrate the actual benefit of bringing in such resources when one of the primary issues experienced was a lack of direct communication between municipal officials and

the company. Based on Authority's review of the record evidence, the efficacy of the mutual aid Liaisons appears to be marginal at best.

The Authority finds that Eversource did not meet standards of acceptable performance for providing sufficient resources to manage the town liaison process, resulting in a failure to provide timely and accurate information, to coordinate response and restoration activities, and to provide detailed information to enable town emergency response functions. This failure to meet these standards caused significant demonstrable harm to municipalities and their residents, particularly in the first 48 hours of the storm response, as towns are entirely dependent on Eversource for information about restoration activities, road clearing, and other outage-related information that is crucial to their ability to ensure public safety.

Further, based on the record evidence, the only logical conclusion is that assigning Liaisons to more than one town is insufficient during storms of Event Level 3 or higher. Accordingly, the Authority will order Eversource to set the level of required Liaisons at 160 for Event Level 3 or higher in its ERP.

4. Eversource Performance – Make Safe and Priority Call Response

Eversource defines public safety events as falling within three classifications, which overlap with Fire, Police, and Safety (FPS) call classifications, described *supra*.

Table 25. Eversource Priority Classifications

Priority 1 (FPS-1)	Immediate life threatening situation
Priority 2 (FPS-2)	A situation hindering emergency operations (e.g., firefighting or rescue) but is not immediately life threatening but may prevent future rescue or emergency responders from responding to a threat. A Make Safe blocked road is an example.
Priority 3 (FPS-3)	Any electrical hazard such as downed wires, with no immediate threat to life or property.

Eversource 30-Day Event Report, p. 66.

FPS-2 calls meet the definition of a blocked road according to the Make Safe/Blocked Road Protocol in the ESF-12 Annex, but also includes other situations that hinder emergency operations. FPS-3 calls are typically road clearing activities that consist of down electrical facilities in the public right-of-way that do not meet the Make Safe definition of blocked road.

Table 26. ESF-12 Make Safe Protocol – Priority Categories

Priority	No.	Definition
High	1	Support to Search and Rescue and other lifesaving resources
	2	Critical life sustaining facilities (i.e. hospitals, nursing homes, other)
	3	Additional life sustaining facilities (i.e. emergency feeding and sheltering sites, local distribution points, other)
	4	Critical community support facilities (I.e. police, fire, EMS, and emergency management sites, other)
	5	Longer term sustaining facilities (I.e. water treatment and sewage facilities, electrical facilities critical for power restoration, other)
	6	Remaining critical facilities (I.e. critical communication nodes)
Medium	7	Major traffic routes including interstate highways and ramps
	8	Major waterways essential to commerce and major flood drainage ways
Low	9	Other roads

ESF-12 Annex, p. 37.

In responding to FPS and all other trouble locations during the restoration process, Eversource categorizes field restoration crew assignments (both line and tree crews) as either "outage" or "non-outage" trouble locations. Response to Interrogatory RSR-7. All FPS priority calls are classified as "non-outage" so they can be tracked by the company separately. Id. Each trouble location is given a unique ticket in the company's outage management system, and the company assigns a crew to a single trouble location at a time, with often more than one crew assigned to a single trouble location. Id. Make Safe locations are very often also associated with outages. Id. When this is the case, two tickets would be created in OMS for a Make Safe location: one to deal with the Make Safe work, which would be classified as a "non-outage" event in OMS, and one to address the outage, which would be classified as an "outage" event in OMS. Id.

Under the Make Safe/Blocked Roads protocol, the municipality prepares a listing of blocked roads and priorities, which it submits to the Liaison. Id. For a blocked road to qualify for Make Safe work according to the Protocol, it must meet two criteria: that the road is impassable, and that there is no reasonable alternative access. Id. The priority of FPS calls is determined by the municipal fire, police, or operator making the call. Eversource ERP, p. 37. Further, Eversource's ERP recognizes that emergency response is a traditional function of the government and that the company must plan and coordinate its storm response duties accordingly. Id.

The process for town officials to notify Eversource of FPS-2 and Make Safe blocked roads generally begins by the municipality providing a list to its Liaison. The Liaison then inputs that list into the company's OMS system. Eversource Response to Interrogatory RSR-7. The Blocked Road forms that municipal officials provide to the Liaison are standardized according to the Make Safe Protocol established in the ESF-12 Annex. This form includes fields for recording pertinent information about the

location of the blocked road, such as street address, and whether there are wires down, broken poles or other relevant information. ESF-12 Annex, p. 46. Eversource also directs municipal officials to call in the information to the dedicated FPS-2 phone number. Eversource Response to Interrogatory RSR-6; Eversource Response to Interrogatory LCG-156, Attachment 1, p. 8.

Over the course of the storm response, Eversource received and responded to 265 FPS-1 events, 2,431 FPS-2 events, and 2,273 FPS-3 Events. Eversource 30-Day Event Report, p. 68. Of the 265 FPS-1 Events, Eversource received 156 on August 4, 2020, and over 200 from August 4, 2020, through August 6, 2020. Id. In a separate, more recent filing, Eversource provided a similar but slightly different number of FPS-2 (2,474) response incidents, and in the calculation below the Authority uses this second figure. Eversource Response to Interrogatory RSR-8SP01, Attachment 1. Of the 2,474 FPS-2 wire down calls Eversource received over the course of the storm, Eversource received 1,943 (roughly 80%) of them from August 4, 2020, through August 6, 2020, or within the first 48 hours following the onset of Tropical Storm Isaias. Eversource Response to Interrogatory RSR-8SP01, Attachment 1. Of those, 1,805 were received on either August 4, 2020, or on August 5, 2020. Id. The average time for an Eversource crew to arrive at the site for FPS-2 calls taken on August 4, 2020, or August 5, 2020, was 19 hours. Id. Almost 4% of these calls were responded to after 48 hours, 11% after 36 hours, and 22% after 24 hours.[37] Id.

Of the 2,273 FPS-3 calls Eversource received over the course of its storm response efforts, it received 1,856 (roughly 80%) such calls from August 4, 2020, through August 6, 2020, or within the first 48 hours following the onset of Tropical Storm Isaias. Eversource Response to Interrogatory RSR-8SP01, Attachment 1. Over the course of Eversource's storm response, the average response time for FPS-3 events was 37.75 hours. Of the 1,762 FPS-3 calls that Eversource received on either August 4, 2020, or August 5, 2020, the average response time was 45 hours. Id. Almost 37% of these calls were responded to after 48 hours, 52% after 36 hours, and 64% after 24 hours.[38] Id.

a. Analysis and Determination

Over the course of its response to Tropical Storm Isaias, Eversource states that it responded to more than 6,000 different municipal priorities and that most of the FPS-2 and FPS-3 calls were addressed between August 6, 2020, and August 10, 2020. Eversource Responses to Interrogatories LCG-4 and LCG-11. Eversource provided data showing that it responded to 50% of FPS-2 events within 16 hours of when reported and nearly 100% within 48 hours of when reported. Eversource Response to

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[37] The Authority discarded 13 calls because they had response times that occurred before the call indicating some kind of error or otherwise unreliable record. Eversource Response to Interrogatory RSR-8SP01, Attachment 1.

[38] As with the FPS-2 data, the Authority discarded 13 calls because they had response times that occurred before the call indicating some kind of error or otherwise unreliable record. Eversource Response to Interrogatory RSR-8SP01, Attachment 1.

Interrogatory RSR-8SP01, Attachment 2, p. 1. Eversource states it responded to nearly 50% of FPS-3 events within 24 hours and 80% within three days. Id., p. 3.

The Authority reviewed Eversource's records of when it cleared FPS-2 events for the towns who were intervenors in this proceeding. The Authority finds that the following percentage of total FPS-2 events were resolved on August 8, 2020, or later: Monroe 53%; New Fairfield, 43%; Bethel, 71%; Newtown, 39%; Ridgefield, 50%; and Westport, 71%. Eversource Response to Interrogatory LCG-403, Attachment 1, pp. 1, 10-12, 14, and 18. Statewide, Eversource cleared 51% of the total number of FPS-2 incidents it had recorded on or after August 8, 2020. Id., pp. 1-20. This means that more than 50% of blocked roads lasted 4 days or more. Consequently, Eversource's claim that it responded to municipal priorities in a short amount of time is contradicted by the record evidence.

Eversource also points to an Authority-authored report that stated that there is no bright-line rule regarding Make Safe protocol, and that there is a need to balance Make Safe work with other restoration work. Eversource Response to Interrogatory LCG-11, Attachment 1, p. 37. Indeed, the plain language of the ESF-12 Annex does allow flexibility as circumstances warrant. ESF-12 Annex, p. 20. However, Eversource takes the Authority's report out of context, as it applied to a dispute between the Town of Fairfield and UI regarding expanding the definition of a Make Safe Blocked Road. Eversource Response to Interrogatory LCG-11, Attachment 1, pp. 36-37. Specifically, the report addressed whether allocating more than two crews to each (UI) town that requests them, as ordered in the ESF-12 Annex, is appropriate. In other words, the full context of the Authority's report reveals that flexibility is certainly allowed in balancing Make Safe work and restoration efforts, but that flexibility is only allowed within the framework established by the Make Safe protocol and the minimums of acceptable performance outlined therein, namely that one Make Safe resource be designed to each town as requested and that public safety priorities must, generally, be addressed first. Id.

Further, in its Pre-Filed Testimony, Eversource asserts that the qualification in the ESF-12 Annex that acknowledges that EDCs "may repair or restore a 'lesser' priority facility before a higher priority facility in order to meet higher priority needs" was particularly important during its response to Tropical Storm Isaias because the event was so devastating and widespread as to necessitate work in all 149 towns it serves, and further that the COVID-19 pandemic introduced new critical needs that do not necessarily fit within the traditional response priorities. Eversource 30-Day Event Report, p. 4; Eversource Response to Interrogatory AG-1, Attachment 1, pp. 23-24.

The Authority finds these arguments unavailing because the ESF-12 Annex and ERPs were designed in response to similar events in terms of number of trouble spots and outages. Further, both the ERP and the ESF-12 protocols were designed to effectively operate, and to be followed, for storms of even greater magnitude than Tropical Storm Isaias, as is evidenced by the Event Level 1 classification included in the ERP. Simply put, nothing in either EDC's ERP or the ESF-12 Annex indicates that a different set of priorities or standards should be followed for more impactful storms.

Further, the Authority finds that the COVID-19 pandemic should not have had an impact on Eversource's ability to follow the ESF-12 Make Safe protocols.[39] The company's ability to properly procure sufficient resources and to ticket and assign FPS events to the procured crews was unaffected by the pandemic. The only impact on the Make Safe process that can reasonably be attributed to the pandemic is the interruption of communication between the Liaisons and the towns. However, the Authority finds that the interruption of such communication should have been anticipated and contingencies planned for by the emergency preparedness professionals employed by Eversource as the impact of the pandemic was well known by August 4, 2020.

Further, and most importantly, the Authority finds that any impact the pandemic had on the Make Safe process, which the Authority reiterates should have been anticipated and planned for, was negligible, particularly in comparison to the issues presented by the sheer lack of available crews. Any new or different critical needs resulting from the pandemic could have been addressed with the proper number of Make Safe crews. Further, Eversource met with municipalities in May 2020, as well as DEMHS and PURA in June of 2020 to discuss among other things, emergency response and Make Safe coordination during pandemic conditions. Eversource Response to Interrogatory LCG-156, Attachment 1; Eversource Response to Interrogatory LCG-159, Attachments 3 and 4. There was little concern noted about Make Safe operations other than outside crews being reluctant to travel through New York City during the pandemic. Id., Attachment 4, p. 2. In the meeting with the municipalities in May 2020, Eversource made only general statements that there may be changes to emergency response due to COVID-19 conditions, but otherwise made no specific alterations to its Make Safe process. Eversource Response to Interrogatory LCG-156, Attachment 1. If anything, the pandemic should have, in and of itself, led Eversource to be even more conservative in its preparation for Tropical Storm Isaias than previously directed by the Authority, and as discussed elsewhere in this Decision (i.e., led to an earlier and more aggressive crew procurement strategy).

Eversource makes additional claims that towns reported roads as blocked even if they did not meet the definition of a Make Safe Blocked Road as defined in the ESF-12 Annex. Eversource Reply Brief, p. 40. In support of this claim, Eversource points to blocked forms submitted by municipalities, or those forms filled out by Liaisons. Eversource Response to Interrogatory RSR-7SP01, Attachment 1; Eversource Response to Interrogatory RSR-7SP02, Attachments 1-3. The Authority has reviewed these forms and finds that many are filled out according to the prescribed priority code indicated by the ESF-12 Annex. There are some which either ignore the priority column entirely or enter what might appear to be designations, comments, or a different coding system than is prescribed. Nevertheless, the locations and other columns appear, on the whole, to be clear and descriptive. Further, Eversource itself experienced that its own Liaisons were providing lists to work centers that were not properly filled out. Eversource 60-Day Event Report, p. 10. In fact, Eversource acknowledged that its own

[39] Further, even if the COVID-19 pandemic could reasonably be construed to have an impact on the company's ability to follow the ESF-12 Make Safe protocols, any impact was known or knowable by Eversource's management well in advance of Tropical Storm Isaias, given that the State was operating under a public health and civil preparedness emergency declaration since March 10, 2020.

system for tracking blocked roads in response to Tropical Storm Isaias was not equipped to keep such an extensive list up-to-date and that users subsequently lost confidence in the list. Eversource Response to Interrogatory LCG-85, Attachment 1, p. 2. Eversource also acknowledged that it did not have adequate staffing to manage the number of blocked road reports. Id. Also, the fact that multiple towns testified to having cleared roads without electrical facilities blocking the road would indicate that the towns generally understand the difference in the different types of blocked roads and actively worked to address blocked roads that did not require Eversource crews. Purcaro PFT, p. 2.

The Make Safe protocol and the company's ERP do not delegate to Eversource the responsibility to identify Make Safe blocked roads but, rather, delegate that responsibility to the municipality. There is a reason for this. The towns are best equipped to understand which roads are blocked throughout its footprint and determine what is passable for emergency vehicles. Indeed, Eversource acknowledges that municipalities are best equipped to identify Make Safe Blocked Roads. Eversource Rebuttal Testimony, p. 10. Eversource's argument is belied by its own experience. Eversource's initial response (Make Safe work and restoration of critical facilities) was hindered by the significant amount of tree damage in roadways. Eversource 30-Day Event Report, p. 71. Since Liaisons assisted multiple towns as part of their assignments, Eversource failed to provide a dedicated Liaison to municipalities to sort through the massive amount of blocked roads.

Further, towns are inherently incentivized to ensure the accuracy of the blocked road list, as entering additional, incorrect blocked road information would impede the speed at which the other blocked roads in the town would be addressed. No record evidence was presented to support the finding that towns would take action that inherently subverts their own interest in addressing public safety concerns with utmost urgency and efficiency. Ultimately, it is clear that any accidental mischaracterizations of Make Safe blocked roads were, at most, marginal in comparison to the sheer lack of available Make Safe crews, and further were either caused by or exacerbated by the deficiencies in the municipal liaison process, the manual nature of the company's current Make Safe blocked road reporting process, or Eversource's own internal company policy, which notably does not exist in its ERP or the ESF-12 Annex, to first verify Make Safe blocked roads. The Authority finds that the approach taken, as well as the processes employed by Eversource, both in terms of the number of Liaisons Eversource provided and its manual process for logging blocked roads, did not reasonably scale to the severity of Tropical Storm Isaias.

Eversource further contends that the Make Safe protocol does not obligate the company to dedicate a Make Safe line crew to each municipality. Eversource Reply Brief, p. 43. Eversource states in order for Eversource to send a crew, a municipality must first experience a qualifying Make Safe incident, record the Make Safe location(s) in the standard form and ranked appropriately, and submit it to Eversource; only then is Eversource obligated to send a crew to the location according to its availability and after weighing all town priorities. Eversource Reply Brief, p. 44; Eversource Response to Interrogatory LCG-471, Attachment 2.

Overall, Eversource greatly downplays its responsibilities in the Make Safe process, especially through the framing of its arguments. First, once Eversource receives a blocked road form from a municipality, it is obligated to perform three tasks: (1) mobilize the *necessary resources*; (2) assign resources to town or location; and (3) address all priority scenarios. ESF-12 Annex, p. 38. Eversource claims it properly prioritized FPS events along with restoration activities, but that it simply did not have enough resources to assign and address the priority scenarios in a timely manner, especially in the first 48 hours, as is evidenced by the average response time of 19 hours for FPS-2 events that occurred on August 4 and 5, 2020. Further, there is clear evidence that demonstrates that Eversource knew of the need by towns for Make Safe crews and general road clearing, and its obligation to provide such resources, but that it barely had the resources to respond to FPS-1 and FPS-2 calls within the first two days, let alone dedicate resources to each town as was done by UI. See, e.g., Eversource Response to Interrogatory RSR-27, Attachment 3, p. 34.

At least 130 of its 149 towns requested Make Safe crews within hours of the onset of Tropical Storm Isaias. Eversource Response to Interrogatory RSR-41; Eversource Response to Interrogatory RSR-7SP01, Attachment 1. Further, multiple FPS-2 events were identified in each town in these initial Make Safe requests. The ESF-12 Annex clearly indicates that a "dedicated resource" must be assigned upon request by a town and that the dedicated resource is to be *in addition to* the town Liaison. ESF-12 Annex, pp. 24-25. Thus, once a town submitted a blocked road form in response to Tropical Storm Isaias, Eversource was compelled to provide the town with a dedicated Make Safe resource, whether a crew or an additional Liaison, in accordance with the ESF-12 Annex. Further, such a resource should reasonably have included a line crew, as such a resource is necessary to address Make Safe blocked roads. In the context of Tropical Storm Isaias, reasonable compliance with the ESF-12 Annex required that each requesting town would require a Make Safe crew and likely a dedicated Make Safe liaison, as is commonplace in UI's service territory. Further, while not strictly required, a reasonably well-prepared utility would have anticipated Make Safe requests from all 149 towns given the magnitude of the impending emergency event, and proactively planned to assign dedicated resources to each.

In plain terms, this process essentially collapsed during Tropical Storm Isaias. Accordingly, the Authority finds that Eversource failed in three key ways regarding its Make Safe and safety priority response. *First*, despite clear and consistent guidance from the Authority, Eversource failed to bring sufficient resources to bear in the first 48 hours following the onset of Tropical Storm Isaias to timely and appropriately respond to threats to public safety and meet its public safety obligations. *Second*, Eversource failed to properly prioritize fire and public safety events with the modest resources it did have, based on the direction provided by the municipalities. *Third*, Eversource failed to relay information timely and properly to town officials about what Make Safe and safety priority work it had completed in the early stages of the storm response.

In the end, Eversource was not able to meet its obligations under the ESF-12 Annex Blocked Road Protocol because it simply did not have the adequate resources during the crucial initial stages of the response, which were only exacerbated by its own failings through the liaison process and Make Safe blocked road form submission process. The Authority finds the aforementioned failures to be unreasonable and not in

compliance with acceptable standards of performance. Further, the Authority finds that Eversource's actions – allowing pervasive failures to impact nearly every aspect of Make Safe and Safety Priority response – were imprudent.

Also notable was testimony and public comment from multiple municipalities that Eversource failed to properly and timely restore critical facilities and town priorities. During the course of this investigation, the Authority discovered that Eversource does not consider a critical town facility operating on an emergency generator to constitute an outage. Tr. 12/21/20, pp. 1120, 1123, 1143 and 1144. When Eversource receives a priority call from a municipality about an outage at a critical facility, it will send out a resource to assess the outage and make a determination whether the facility is operating on generator. Id., pp. 1047 and 1049.

The clearest example showing the deficiency in Eversource's response to town critical facilities with back-up power occurred at the town of Bethel's police station. The town reported an outage at its police station multiple times per day through the assigned Eversource's Liaison. Four Towns PFT, pp. 11 and 16. Eversource visited the location with a damage assessor who determined that the facility was operating properly on an emergency generator, and Eversource determined that the facility had the ability to operate on generator power sufficiently for multiple days. Id., pp. 1049, 1104, 1105, 1108, 1120, and 1123. What Eversource had not considered when it made this decision was that Bethel had great difficulty on multiple occasions obtaining fuel because its oil supplier had power, telephone, and internet outages from the storm. Tr. 12/14/20, p. 39. The facility nearly ran out of fuel on multiple occasions. Id. Importantly, it is not within Eversource's discretion to second guess the restoration priority of a town critical facility that is on a generator; this is entirely in the purview of the municipality. To the extent this practice is a formalized company policy, it contradicts the ESF-12 Annex, which states that municipalities determine critical facility priorities. EDCs must treat critical facilities that have lost electric distribution service as being without power, regardless whether those facilities have back-up generation. The EDCs must comply with the priority restoration of those facilities as indicated by the town and within the larger set of priorities, as established by the framework in the ESF-12 Annex.

The Authority intends to work with the stakeholders in this docket and those involved with the ESF-12 process to modify the Make Safe/Blocked Road Protocol. Until such a time as a revised Make Safe Protocol has been adopted, however, the Authority directs Eversource to include in its storm preparedness resource acquisition strategy an allotment to acquire enough line resources and Liaisons to dedicate one to *each* potentially affected municipality in its territory who requests such resources. The liaison will be in addition to the town Liaison and will be dedicated solely to blocked roads, until such a time as the town has relayed to the company that it no longer needs a dedicated Make Safe liaison. This requirement will apply to any predicted event of Event Level 4 or higher. For storms that meet the definition of Event Level 3 or higher by number of customer outages, the company shall fulfill the town's request upon receipt of such request, regardless of the completeness of the submitted form. Additional line resources must be made available for municipalities no later than 12 hours after the storm has left the area. Additional line resources brought to bear for which a town no longer has need may be allocated to restoration or other duties.

5. UI Performance – Liaison Program

During its response to Tropical Storm Isaias, UI employed approximately 50 customer-facing employees from its Customer Group to act as municipal liaisons. Tr. 12/18/20, p. 707. UI provided at least two liaisons to each town that requested a liaison, ensuring that coverage was provided 24/7. UI Response to Interrogatory OCC-20, Attachment 1. UI did not assign any liaisons to cover more than one town. Id. Further, the over 90% of UI employees who served as a municipal liaison during and after Tropical Storm Isaias had done so in prior storms. UI Response to Interrogatory LCG-267, Attachment 1. As a group, employee tenure with UI averaged 15 years, with 83% working within the Customer Service and 17% within the Planning and Regulatory departments. Id.

Prior to Tropical Storm Isaias, UI identified employees to fill public liaison roles with customer service background, good communication and problem-solving skills, technical proficiency, and familiarity with UI's service territory and system. Tr. 12/18/20, pp. 711, 717, and 723. Of the 54 liaisons, 45 (83%) were from the Customer Service department and the remaining 17% were from Regulatory and Planning department. UI Response to LCG-267, Attachment 1. UI also requires role-shadowing experience during a storm before assigning a liaison to a municipality. Id., p. 711. Further, UI involves liaisons in storm drills and exercises, and liaisons attend the annual municipal storm meetings to interface with their municipal leaders and emergency response personnel. Id., pp. 724-725.

Two towns in UI's territory provided testimony in this proceeding. Bridgeport, represented by Director of Emergency Management and Homeland Security Scott Appleby, reported that the working relationship between the town and the municipal liaisons was good despite a lack of timely information from UI. Tr. 12/23/20, pp. 1503-1504. Bridgeport stated that the municipal liaison was identified within five minutes of its request for a liaison from UI, and immediately after the liaison initiated contact with the city. Bridgeport Response to Interrogatory RSR-94, p. 1. Bridgeport also reported satisfactory communication with the municipal liaison regarding the list of priority locations, even though there were delays in restoration to those locations. Tr. 12/23/20, pp. 1506-1507. Overall, Bridgeport agreed that UI worked with town officials prior to the storm to identify and maintain an accurate list of critical facilities, and that UI coordinated with town officials throughout the restoration period. Id., pp. 1511-1512. Similarly, the Town of Easton reported that UI's liaison system was excellent. Tr. 12/15/20, p. 395.

a. Analysis and Determination

The Authority finds that UI demonstrated compliance with the acceptable standards of performance with regard to its liaison program in response to Tropical Storm Isaias. Although information available to liaisons was sometimes delayed, both the City of Bridgeport and the Town of Easton testified that the liaisons maintained acceptable communication with both towns throughout the restoration process. Tr. 12/23/20, pp. 1503-1504, 1511-1512; Tr. 12/15/20, p. 395. Additional record evidence also supports the finding that regular two-way communication was maintained between the municipal liaison and municipal officials throughout the restoration process.

Bridgeport Response to Interrogatory RSR-94. While generally reasonable and in line with acceptable standards of performance, the Authority does not preclude itself from finding specific actions, and the associated costs, relating to the company's liaison program to be imprudent during UI's response to Tropical Storm Isaias in future proceedings.

6. UI Performance – Make Safe and Priority Call Response

UI classifies public safety calls into three categories.

Table 27. UI Priority Classifications

Priority 1 (FPS-1)	Imminent danger or risk to life.
Priority 2 (FPS-2)	A situation where conditions are hindering emergency operations (e.g., firefighting or rescue) but is not immediately life threatening but may prevent future rescue or emergency responders from responding to a threat. A Make Safe blocked road is an example.
Priority 3 (FPS-3)	Any electrical hazard such as downed wires, with no immediate threat to life or property.

UI Response to Interrogatory RSR-19.

FPS-1 calls are the highest priority and require immediate action. UI ERP, p. 8. FPS-2 calls meet the definition of blocked road according to the Make Safe/Blocked Road Protocol in the ESF-12 Annex, but also include other situations that hinder emergency operations. FPS-3 calls are typically road clearing activities that consist of downed electrical facilities in the public right-of-way that do not meet the Make Safe definition of blocked road. The ESF-12 Annex provides guidance for towns on how to prioritize Make Safe and road clearing locations. This information is presented in Table 28 below.

Table 28. ESF-12 Make Safe Protocol – Priority Categories

Priority	No.	Definition
High	1	Support to Search and Rescue and other lifesaving resources
	2	Critical life sustaining facilities (i.e. hospitals, nursing homes, other)
	3	Additional life sustaining facilities (i.e. emergency feeding and sheltering sites, local distribution points, other)
	4	Critical community support facilities (i.e., police, fire, EMS, and emergency management sites, other)
	5	Longer term sustaining facilities (i.e., water treatment and sewage facilities, electrical facilities critical for power restoration, other)
	6	Remaining critical facilities (i.e., critical communication nodes)
Medium	7	Major traffic routes including interstate highways and ramps
	8	Major waterways essential to commerce and major flood drainage ways
Low	9	Other roads

ESF-12 Annex, p. 37.

While the ESF-12 Annex definitions of damage priority categories, listed above, overlap with the FPS call classifications to some degree, they are separate and distinct. Such separate, but similar, classifications create the potential for confusion with town officials and liaisons, particularly town liaisons that are not community relations professionals or familiar with the towns in which they are working.

During all major storm events, calls from municipal police and fire departments are received on a dedicated line within UI's System Operations and are diverted to UI PD/FD Call Takers. To the extent the call is about down wires, the report will be entered into OMS and prioritized for dispatch to the Wire Down Supervisor or the Wire Down Stand-By personnel. UI ERP, p. 306. More generally, it is the responsibility of the PD/FD Supervisor to manage the PD/FD Call Takers to ensure that UI answers all calls and that the high priority calls are given to the Operations Section Chief. Id., p. 313. UI's ERP calls for four PD/FD Call Takers for Event Level 3 events, such as Tropical Storm Isaias. Id., p. 395.

In response to Tropical Storm Isaias, UI made available at least one Make Safe crew to each municipality once the municipality opened its EOC, requested a Make Safe crew, and provided a list of blocked roads to UI. UI Response to Interrogatory LCG-258. UI typically provided two crews to municipalities during the day shift and one crew during the night shift. Id. UI had 12 Make Safe crews working on the evening of August 4, 2020, immediately after the emergency event. Id.

Table 29. UI's Make Safe Crews during Tropical Storm Isaias

Shift	Number of Towns	Number of Make Safe Crews Requested / Received
August 5, 2020		
Day	14	2 Make Safe crews
	2	1 Make Safe crew
Night	11	1 Make Safe crew
August 6, 2020		
Day	4	2 Make Safe crews
	2	1 Make Safe crew
Night	14	1 Make Safe crew
August 7, 2020		
Day	1	2 Make Safe crews
	9	1 Make Safe crew
Night	1	2 Make Safe crews
	5	1 Make Safe crew
August 8, 2020		
Day	3	1 Make Safe crew
Night	1	1 Make Safe crew
August 9, 2020		
Day	1	1 Make Safe crew

UI Response to Interrogatory LCG-258.

Make Safe crews and town public works crews/officials were coordinated through the municipal liaison. Id. The municipality provided the muster time and location to UI crews. Id. The company did not track when Make Safe events were completed. UI Response to Interrogatory RSR-7.

The total number of FPS calls UI received and responded to during its Tropical Storm Isaias response, including the average time it took each crew to arrive on scene, is presented in Table 30.

Table 30. UI FPS Calls Received and Average Response Times

Call Type	Total Calls	Average Time to Arrive at Site (hrs)
FPS-1	21	7.5
FPS-2	530	80.4
FPS-3	237	19.0

UI Response to Interrogatory RSR-19.

UI's ERP makes clear that "[r]estoration of service to previously designated public emergency service institutions such as major hospitals, evacuation centers, as prioritized by municipal officials" should be one of UI's first priorities in response to any storm event. UI ERP, p. 18. Bridgeport provided testimony that UI did not meet this obligation in response to Tropical Storm Isaias, as a set of large senior independent living homes that were vulnerable to outages were not restored in a timely manner. Tr. 12/23/20, p. 1501. Specifically, Bridgeport's testimony states that it raised its concern regarding the living community with UI on August 5, 2020, but that it took until Friday, August 7, 2020, for the homes to have their power restored. Id., pp. 1501-1502. Also, Bridgeport's emergency communications and operations center (ECOC) lost power and was on an emergency generator. UI Response to Interrogatory RSR-100, Attachment 1, p. 355. The ECOC is on the City's critical facility restoration list and is listed as a tier 1 restoration location. UI Response to Interrogatory LCG-247, Attachment 2. This facility was not restored until the morning of August 8, 2020, despite repeated attempts by the City of Bridgeport to inform UI of the facility's outage. UI Response to Interrogatory RSR-100, Attachment 1, p. 355; Bridgeport Response to Interrogatory RSR-94, pp. 4, 6, and 10; UI Response to Interrogatory RSR-5, Attachment 1. When it was restored, UI did not appear to have informed Bridgeport municipal leaders of the restoration. Bridgeport Response to Interrogatory RSR-94, p. 10.

Bridgeport also noted a lack of coordination from UI when mustering Make Safe crews and city public works crews when, on the morning of August 5, 2020, the assigned UI crew was at the opposite side of town and was late to the muster point by at least an hour, which was deemed unacceptable by the Bridgeport officials at the time. Tr. 12/23/20, p. 1509; UI Response to Interrogatory 100, Attachment 1, p. 355. Bridgeport also noted that crews assigned to Make Safe priorities were often taken away from the assignment and moved to other assignments without proper notification provided to Bridgeport officials. Id., p. 1505; Bridgeport Response to Interrogatory RSR-94, pp. 6 and 9. According to Bridgeport, this occurred first at approximately 4:30 p.m. on August 5, 2020, when UI removed one of two crews and stated that the crew will be used for restoration. Bridgeport Response to Interrogatory RSR-94, p. 6. The remaining crew was scheduled to work until 10:00 p.m., and to be replaced by another at approximately 10:30 or 11:00 p.m. Id. That crew never arrived and Bridgeport was left without a Make Safe crew from UI that night. Id. Bridgeport had its own public works team ready to pair with UI's crew that evening. Id. Shortly after midnight on August 6, 2020, UI sent a notification to Bridgeport that it would be prioritizing restoration during the day on August 6, 2020, and that most crews would be working on restoring power to priority locations and customers. Id. Subsequently, at approximately 8:39 a.m., Bridgeport contacted UI requesting a Make Safe crew. Id., p. 7. At approximately 9:00 a.m., UI communicated to the city that it would not provide a dedicated Make Safe crew to the city, but that it would use restoration crews to prioritize Bridgeport Make Safe locations. Id.

Meanwhile, Bridgeport was attempting to get outage information from UI for vulnerable customers in the city. Id., pp. 6 and 9. Bridgeport also had significant Blocked Road locations remaining. Id., p. 5. Bridgeport also asserted that Tropical Storm Isaias was different than larger past events such as Superstorm Sandy, in that UI's field crew numbers were potentially too few in the first two days to manage all the damage spots. Tr. 12/23/20, p. 1525.

a. Analysis and Determination

The Authority finds that UI did not meet standards of acceptable performance with regard to its Make Safe and Priority call duties. First, the Authority notes the lengthy delays in responding to FPS-1 and -2 events, as presented in Table 30 above. The average time it took for UI to arrive on scene for FPS-1 calls was 7.5 hours and the average time it took to arrive on scene at FPS-2 events was more than 80 hours. UI Response to Interrogatory RSR-19. UI stated that in its after-action review of the FPS-1 calls it had received, only 7 of those calls were actual FPS-1 events, and their response to those events was 2 hours and 12 minutes. Id. Considering UI's position that only a select seven actually qualified as FPS-1 events, the more than two-hour response time to those events that constituted imminent and life-threatening calls is unacceptable.

Second, as is clearly indicated in the ESF-12 Annex and in UI's ERP, town emergency responders make the FPS designation, and it is UI's responsibility to respond immediately, as emergency responders can do nothing until the electrical hazard is resolved. ERP p. 18; ESF-12 Annex, pp. 20 and 36. Therefore, the Authority must consider in its evaluation all FPS-1 calls, regardless of UI's after-the-fact review. Therefore, the Authority finds UI's response times to be noncompliant and wholly inadequate.

Regarding the average response time of 80 hours to FPS-2 calls, the Authority recognizes that these long response timeframes are mitigated somewhat by the fact that UI had directly assigned crews to muster with municipal crews to follow the Make Safe protocol.

However, as shown above in the case of Easton and Bridgeport, UI did not always have a Make Safe crew available to muster with municipal crews. The Town of Easton testified regarding challenges locating Make Safe crews on the first night of the restoration process, followed by a period of coordinated efforts between municipal crews and UI Make Safe crews. Tr. 12/15/20, pp. 391 – 394. Bridgeport faced more extensive challenges locating Make Safe crews in the first few days of the restoration period. Tr. 12/23/20, pp. 1504-1505. Assigned Make Safe crews abandoned city Make Safe crews on August 5, 2020, with no notice from UI. Bridgeport Response to Interrogatory RSR-94, pp. 6. Further, despite claims that it provided Make Safe crews to the city, UI removed very early on the dedicated Make Safe crews from Bridgeport, while blocked roads remained uncleared. Id., pp. 6-8. UI, therefore, did not meet its obligations regarding the Make Safe protocol. UI did not provide a dedicated Make Safe crew to the city until all roads were cleared. UI did not proactively notify the city that it was removing the crew, nor did it provide an estimate for when it would return. Bridgeport Response to Interrogatory RSR-94, pp. 6-7. Instead, UI began prioritizing general restoration activities with Make Safe crews that had been formerly assigned to the city. Id.

In summary, the Authority concludes that UI did not act reasonably or meet acceptable standards of performance with regard to its public safety obligations in responding to FPS-1 calls. Nor did UI act reasonably in performing its duties with respect to Make Safe Protocol, as evidenced by the slow response times, and the problems described by Easton and Bridgeport. Further, UI did not properly prioritize

Bridgeport's priority restoration locations, nor did it communicate in a timely and accurate manner regarding information sought by Bridgeport to identify these locations. Bridgeport testified that it sought to identify priority locations for UI for restoration of at-risk communities. Tr. 12/23/20, pp. 1501- 1502. Clearing blocked roads and responding to municipal priorities are the highest priority for emergency response, second only to immediate life-threatening situations.

UI was required by the Make Safe Protocol and its ERP to provide at least one Make Safe crew to Bridgeport to address Make Safe locations. ESF-12 Annex, p. 22; UI ERP, p. 42. UI's ERP also requires, as a first priority for public safety, to muster Make Safe crews with city crews and open roadways. UI ERP, p. 18. When UI must remove Make Safe crews to address higher priority situations, it must notify the city that the crew is being removed and provide an estimated time of return. ESF-12 Annex, p. 35. UI removed dedicated Make Safe crews on August 6, 2020, from 7:00 a.m. to 7:00 p.m. when it no longer assigned a dedicated Make Safe crew to Bridgeport, but instead used restoration crews to address Make Safe locations during that time period. UI Late Filed Exhibit No. 35, Attachment 1, p. 5. At 7:00 p.m. on August 6, 2020, UI then dedicated a Make Safe crew to Bridgeport during the overnight hours. Id. UI argues that its ERP allows for this adjustment as its ERP provides the flexibility to reevaluate priorities during an event to ensure optimal resource allocation. UI ERP, p. 42. While the Authority acknowledges flexibility exists in the ERP, the Authority finds that UI applied it inappropriately, resulting in a substantial delay in resolving a key Make Safe priority that existed at Old Town Road, which could not be completed during the night shift. UI Response to Interrogatory RSR-10, Attachment 1, p. 32. The Old Town Road Make Safe location was initially reported by Bridgeport on the evening of August 4, 2020, as the highest priority. UI Response to Interrogatory RSR-100, Attachment 1, pp. 17 and 19. UI resolved the electrical hazard initially, but there appeared to be an issue with a tree resting on power lines that remained, resulting in Old Town Road remaining a priority for Bridgeport as it posed safety hazard to public. Id., p. 159, 174, 176, 183, and 340.

As a rule, any shifts away from municipal road clearing priorities toward restoration are typically done to address municipal or other emergency restoration priorities. ESF-12 Annex, p. 36. Thus, while UI may have been continuing to conduct Make Safe work, it was no longer properly following the city's priorities as evidenced by one of Bridgeport's highest priorities of clearing on Old Town Road, which was not resolved for multiple days. Tr. 12/23/20, p. 1505. Further, as noted above, Bridgeport requested a dedicated Make Safe crew on the morning of August 6, 2020, which UI rejected seemingly unilaterally deciding to instead use its restoration crews for Make Safe work, regardless of Bridgeport's request. UI Late Filed Exhibit No. 35, Attachment 1, p. 5; Bridgeport Response to Interrogatory RSR-94, p. 7.

Regarding restoration priorities, UI's ERP states that the company must, as a first measure, restore service to those facilities prioritized by municipal officials. UI ERP, p. 18. Despite this clear standard, in the instance of the senior living community identified above, power was restored to other parts of UI's service territory and within Bridgeport prior to the identified senior living community. In another instance, power restoration to Bridgeport's ECOC, which is responsible for 911 communications among other tasks, was left by UI to operate on back-up emergency generation for an extended duration

(90 hours, or nearly four full days). UI Response to Interrogatory RSR-100, Attachment 1, p. 355; UI Response to Interrogatory RSR-5, Attachment 1. Exacerbating the issue, UI provided erroneous restoration information to the city regarding power restoration to the ECOC, stating that the company would respond to the outage at the ECOC on August 5, 2020. Bridgeport Response to Interrogatory RSR-94, p. 6. UI did not restore power to this critical facility until August 8, 2020. UI Response to Interrogatory RSR-5, Attachment 1.

Further, Bridgeport attempted multiple times to identify other vulnerable customers for internal planning and to develop priority restoration locations through the liaison process, but received no response or inaccurate information from UI. Bridgeport Response to Interrogatory RSR-94, pp. 6 and 9. Bridgeport lamented the lack of actionable information as it had no other means to timely identify whether vulnerable customers were without power. Tr. 12/23/20, p. 1524. Also due to poor communications, critical facility restoration of the city's emergency operations center was delayed until August 7, 2020. Tr. 12/23/20, pp. 1506-1507; Bridgeport Response to Interrogatory RSR-94, pp 8-10. The Authority finds that UI did not adequately incorporate Bridgeport's priorities into its response efforts. Further, UI failed to communicate timely and accurate information to the city so that it could perform its necessary public safety functions.

The Authority expects UI to make improvements to its communications between municipal liaisons and Make Safe crews so that in future events there can be better coordination, and ultimately more efficient restoration.

E. CUSTOMER COMMUNICATIONS, OUTAGE REPORTING, AND COMMUNICATIONS SYSTEMS

1. Standard of Acceptable Performance

The Performance Standards Decision requires that EDCs ensure they have adequate staffing for communications during major storm events, particularly for specific stakeholder categories, such as media, local officials, and customers. Performance Standards Decision, Appendix A, p. 3. The EDCs are required to escalate these communication staffing levels based on the event level classifications defined in their respective ERPs. Id.

Eversource's President of Regional Electric Operations, Craig A. Hallstrom, states that, "[t]imely and accurate information for our customers and other stakeholders is just as important as a safe and prompt restoration of service." Eversource ERP, p. 7. Further, Eversource's ERP states that communications and information systems that enable the company to provide this timely and accurate information are designed to be flexible, reliable, and scalable in order to function in any type of event, regardless of cause, size, location, or complexity. Eversource ERP, p. 63. Systems should be suitable for emergency operations that are limited to a single location or widespread across multiple geographic locations or operating companies. Id. Communications systems should be applicable and acceptable to users, readily adaptable to new technology, and reliable in the context of any event to which personnel would be expected to respond. Id.

According to its ERP, Eversource must also ensure that these systems scale to event type, event size, and event complexity. Id. Communications channels are expected to be scalable and reliable and usable by customers in all types of emergency events. Id.

The importance of communication during and after major storms is also highlighted by Eversource's Customer Group Emergency Response Plan (CG ERP), the most recent version of which was approved and made effective on October 20, 2016. Eversource Response to Interrogatory LCG-102, Attachment 1, p. 1. Eversource previously developed its CG ERP, which stands as a separate document from the ERP. Eversource Response to Interrogatory LCG-102. The CG ERP identifies processes that Eversource uses to address customer communications during an emergency event. The plan recognizes that the customer group is primarily responsible for delivering accurate and timely customer messaging. Eversource Response to Interrogatory LCG-102, Attachment 1, p. 6. Further, the documentation reiterates the ERP in that the customer group can support ICS escalation and can scale to "address multi-geographic outage events of various sizes." Id. Also, the CG ERP has an internal requirement that the CG ERP should be reviewed and approved at least annually by key emergency job position owners to ensure accuracy. Id.

Similarly, UI's ERP states that its organizational structure is scalable to adapt to storm events of varying magnitudes. UI ERP, p. 22. A key standard specified in its ERP is that UI must provide stakeholders with timely and relevant communication to enable coordination. Id. Similar to Eversource, UI recognizes that providing accurate

and timely information is as important as any other emergency response activity during an emergency. Id.

2. Eversource Performance

Eversource offers several channels by which customers can contact the company during an emergency to report or to inquire about a power outage. The table below shows the channels and the services provided by each option.

Table 31. Eversource Customer Channel Options

Channel	Options
Phones (Live Agent)	Report an outage Check outage status
Phones Automated (IVR)	Report an outage Check outage status
Social Media	Facebook Twitter Instagram
Email	Email inquiry
Website	Report an outage Check outage status View outage map and table
Website Virtual Assistant (Chat bot)	Ask questions
Mobile App	View and report outage View outage map Call Eversource
Two Way Text	Report an outage - Text OUT Check status - Text STAT

Eversource Response to Interrogatory LCG-106, Attachment 1;
Kountze & Kokoruda PFT, pp. 11-13.

Over the course of Tropical Storm Isaias, Eversource received nearly 6.9 million inbound contacts and initiated more than 5 million outbound contacts. Eversource Response to Interrogatory LCG-109, Attachment 1; Eversource 30-Day Event Report, pp. 102-103. The below table lists customer contacts initiated and received during the storm, broken down by communication channel.

Table 32. Eversource Customer Contacts by Channel

Channel	Contacts	Source
Phones Live Agent (inbound)	144,031	"Detailed CX RPT" tab, cell C12
Phones (outbound)	903,966	"Executive Summary CT" tab, cell H12; Eversource 30-Day Event Report, p. 103
Concierge Calls (outbound)	7,084	"Executive Summary CT" tab, cell H13
Phones - Automated (IVR)	164,261	"Detailed CX RPT" tab, cell C11; Eversource 30-Day Event Report, p. 102
Social Media	58,252	"Detailed CX RPT" tab, cell C43
Email (outbound)	2,129,675	"Executive Summary CT" tab, cell H10; Eversource 30-Day Event Report, p. 103
Website Outage Reports	1,921,665	"Detailed CX RPT" tab, cell C29
Website Outage Map hits	4,053,033	"Detailed CX RPT" tab, cell C31
Chatbot	91,788	"Detailed CX RPT" tab, cell C45
Virtual Assistant	7,163	"Detailed CX RPT" tab, cell C44
Mobile App Outage Report	315,258	"Detailed CX RPT" tab, cell C30; Eversource 30-day Event Report, p. 103
Two Way Text	140,986	Eversource 30-Day Event Report, p. 103
Text Notifications (outbound)	1,984,023	"Executive Summary CT" tab, cell H11; Eversource 30-day Event Report, p. 103
FPS2 & 3 Web Portal	2,041	"Detailed CX RPT" tab, cell C46
INBOUND	**6,840,226**	
OUTBOUND	**5,083,000**	

Eversource Response to Interrogatory LCG-109, Attachment 1;
Eversource 30-Day Event Report, pp. 102-103.

Eversource acknowledged that disruptions to its communications systems occurred during Tropical Storm Isaias, as well as in its aftermath. The company reported (1) disruptions for customers attempting to report their outage on its Internet and digital channels over the first two days of the event, and (2) overloads on its telephone customer call center and IVR reporting systems that resulted because of digital channel disruptions (i.e., customers turned to the call center and IVR system when the digital channels went down). Kountze & Kokoruda PFT, pp. 14-15; Eversource 30-Day Event Report, p. 94.

The following table depicts the maximum number of available call takers for each day of the storm event reported for a 30-minute interval. The maximum number of customer service representatives includes all customer service representatives across the region as well as those employed by Alorica as testimony indicates that all customer service representatives, regardless of location, were available to answer calls from Connecticut. Tr. 12/22/20, pp. 1308-1309; Eversource Response to Interrogatory LCG-117, Attachment 1.

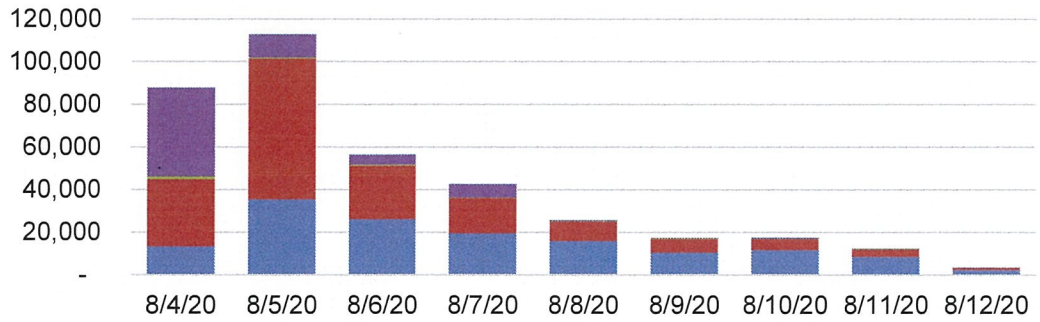
Table 33. Eversource Call Data during Tropical Storm Isaias

Date	Max Cust. Serv. Reps
4-Aug	473
5-Aug	526
6-Aug	349
7-Aug	348
8-Aug	304
9-Aug	300
10-Aug	392
11-Aug	388
TOTAL	**526**

Eversource Response to Interrogatory LCG-117, Attachment 1.

The figure below depicts information on how inbound telephone calls made to Eversource's call centers and through its IVR system were handled over the course of the company's response to Tropical Storm Isaias.

Figure 6. Handling of Calls Made to Eversource



	8/4/20	8/5/20	8/6/20	8/7/20	8/8/20	8/9/20	8/10/20	8/11/20	8/12/20
Abandoned FPS	49	16	7	5	1		1	4	2
Abandoned Agent	41,717	10,615	4,906	6,373	293	330	564	41	13
FPS Handled	1,150	631	327	281	212	168	183	185	80
IVR Handled	31,659	66,044	25,072	16,458	9,141	6,260	5,158	3,435	1,034
Agent Handled	13,396	35,470	26,249	19,550	15,996	10,622	11,693	8,628	2,427

Eversource Response to Interrogatory LCG-109, Attachment 1.[40]

Based on the Authority's review of Eversource's data, more than 40,000 calls to agents, or 73% of total calls to agents, were abandoned by customers on August 4, 2020. Id.[41] Significant abandoned call rates continued post-storm; 23%, 16%, and 24% of calls to agents were abandoned by customers on August 5, 6, and 7, 2020, respectively. Id. Additionally, customers and officials making FPS calls received fast-busy signals, extended wait times, or call quality issues. Connor PFT, p. 20; Kountze & Kokoruda PFT, p. 14. Tr. 12/22/20, p. 1245; Eversource Response to Interrogatory LCG-87, Attachment 1. Public safety priority calls were dropped or experienced quality issues from approximately 2:30 p.m. to 11:30 p.m. on August 4, 2020; in other words, issues were experienced both during and immediately following the emergency event, which occurred from approximately 2:00 p.m. to 8:00 p.m. Eversource Response to Interrogatory LCG-87, Attachment 1; Eversource Response to Interrogatory LCG-135.

Eversource's FPS-1 channel was also unavailable for a time on August 4, 2020; consequently, emergency events had to be reported by email or through the Liaison. Eversource Response to Interrogatory RSR-27, Attachment 3, pp. 16 and 25. As discussed previously, FPS-1 events represent immediate life-threatening situations. Any interruption in the availability of the direct FPS-1 channel presents a serious

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[40] "Abandoned FPS" data is based on Column O ("Calls Abandoned") in the "Police_Fire Data Entry" tab; "Abandoned Agent" data in based on Column O ("Calls Abandoned") in the "Outage Event Data Entry" tab; "FPS Handled" data is based on Column E ("Calls Answered") in the "Police_Fire Data Entry" tab; "IVR Handled" data is based on Column Y ("IVR Outage Calls") in the "Outage Event Data Entry" tab; "Agent Handled" data is based on Column E ("Calls Answered") in the "Outage Event Data Entry" tab.

[41] Cell O10 in the "Outage Event Data Entry" tab in Eversource Response to Interrogatory LCG-109, Attachment 1 lists 41,717 calls abandoned in Connecticut on August 4, 2020. Cell V28 in the "Executive Summary CT" tab of the same spreadsheet lists 73% of calls abandoned in Connecticut on August 4, 2020. Id.

impediment to the company's obligation to address life-threatening situations as quickly as possible. Notably, the Authority was only made aware of the outage in the FPS-1 channel after reviewing emails from Liaisons included in response to Interrogatory RSR-27; no such outage was indicated in the company's 30-Day Event Report. In fact, when asked about any outages on its FPS channels, Eversource stated that there were none. Eversource Response to Interrogatory RSR-19. Eversource only flagged that callers may have experienced busy signals due to congestion on the company's dedicated line, but argued that callers were able to call back immediately and get through. Id.; Tr. 12/22/20, p. 1219.

Regarding the digital channels (i.e., website, mobile app, and two-way text), Eversource reported that on August 4, 2020, inbound customer outage communications channels were unavailable or inoperable from between 2:00 to 3:00 p.m., lasting until 9:00 to 10:00 p.m. on August 4, 2020, due to inadequate system load sizing to handle new channels of mobile app and two-way text. Eversource Response to Interrogatory LCG-87, Attachment 1; Eversource Response to Interrogatory AG-33, Attachment 3, p. 23. The affected channels included the company's website account page, website outage reporting, two-way texting, and the mobile application. Id. Even the outage map, which was recorded by the company as fully operational, was in fact, slow. Id. Finally, around 11:00 p.m. on August 4, 2020, Eversource increased the database max processing; its digital channel service providers, Kubra and AT&T, added additional capacity allowing full operation of the systems around the same time. Id.

However, less than half a day later on August 5, 2020, Eversource's digital channels for its account overview, account-based outage reporting, two-way texting, and mobile application were once again inoperable or unavailable starting at about 10:00 a.m. and continuing until 11:30 p.m. Eversource Response to Interrogatory LCG-87, Attachment 1. Both Kubra and AT&T continued to add capacity to the system throughout the day to remediate the issue. Eversource Response to Interrogatory AG-33, Attachment 3, p. 23.

Eversource attributed these initial overloads of its digital channels and phone channels to multiple factors. *First*, Eversource states that Tropical Storm Isaias resulted in the highest number of outages and trouble spots since the 2011 Storms,[42] causing what Eversource termed an "unprecedented and unexpected" number of customer interactions. Connor PFT, pp. 10 and 20. *Second*, Eversource states that customers seemed to be using multiple channels simultaneously, taking advantage of the ease of use of smart phones and computers. Kountze and Kokoruda PFT, p. 12; Eversource 30-Day Event Report, p. 10. Over the course of the storm, approximately 28% of customers reported an outage using multiple channels. Connor PFT, p. 20. *Third*, Eversource claimed that an increased number of customers working from home due to the COVID-19 pandemic may have caused more customers to use its various outage reporting channels than pre-pandemic. Tr. 12/22/20, pp. 49 and 1248. *Fourth*, Eversource has expanded its reporting channel offerings since 2017, adding both two-

[42] Contrary to the company's assertion, the 2011 Nor'easter had more trouble spots than Tropical Storm Isaias.

way texting and mobile application digital channels and allowing customers to use any preferred form of communication. Connor PFT, p. 21.

Eversource also argues that the disruptions experienced by customers on the telephone and digital channels do not equate to those channels being "inoperable" or "unavailable." Connor PFT, p. 20. Rather, Eversource contends that the systems were overloaded and either response times slowed for customers or failed to record customer outages. Id. Eversource further argues that despite the channel disruptions, the company was able to share accurate information with its customers and had no disruptions to its outbound system. Id., p. 18. To support its claim, Eversource stated that it issued 5 million outbound messages, which included proactive restoration update information, as well as information about disruptions to outage reporting channels. Connor PFT, p. 18.

Eversource also argues that – for purposes of identifying specific customer outages – it does not need nor rely on all customers to report outages in order to accurately identify and record outage locations in its OMS. Kountze & Kokoruda, p. 16. According to the company, with just 10-15% of customers reporting outages, Eversource can use OMS modeling, information from field devices, and other new technology to assess the number and location of outages. Eversource Response to Interrogatory LCG-123. Therefore, Eversource contends that the inability of customers to report outage information did not result in delays in restoration or in displaying outages. Id. Eversource further argues that increased communication channels to receive and send customer information are provided to give customers better feedback during an event, but that they are not necessary to map specific outages. Kountze & Kokoruda PFT, p. 16.

Prior to the storm, Eversource tested its system to a certain level. Eversource designed its call center and web infrastructure to accommodate 80,000 calls and 350,000 outage transactions per hour, which is 20% higher than the peaks experienced during Superstorm Sandy. Eversource Response to Interrogatory LCG-214. However, only 47,000 calls were handled in total by the company on August 4, 2020, well below the 80,000 per hour threshold last tested in 2016. Eversource Response to Interrogatory AG-25SP01, Attachment 1. That test also included a stress test on the new phone system's performance and integration with OMS. Id. At peak during the test, the IVR successfully handled 143,254 calls per hour. Id. Since 2016, Eversource has not conducted another stress test of the phone system. Eversource Response to Interrogatory AG-25. In 2017, 2018, and 2019, Eversource tested the capacity of the internet-based customer reporting channels to capacity levels of Hurricane Sandy plus 20%. Id.

Regarding its participation in emergency event exercises, Eversource stated that it performs enterprise-level storm events annually to simulate major storms; however, exercises in 2019 and 2020 were both canceled due to real-world events. Eversource Response to Interrogatory AG-25. Eversource was scheduled to participate in GridEx in November 2019, as well as an internal "GridEx" type exercise in March 2020 to exercise its CG ERP. Eversource Response to Interrogatory LCG-505. The 2019 exercise was cancelled due to a gas event in Connecticut and the 2020 exercise was cancelled due to the pandemic. Id. Neither event was rescheduled.

a. Analysis and Determination

Based on the record evidence, the Authority finds that Eversource has not met acceptable standards of performance with respect to its customer reporting channels.

The Authority has previously stressed the importance of the company's actions in the first 48 hours of any storm response, particularly the importance of providing customers with timely and accurate information to both inform and enable customers to make appropriate plans. Moreover, as stated earlier, the company's ERP starts by asserting that "[t]imely and accurate information for our customers and other stakeholders is just as important as a safe and prompt restoration of service." Eversource ERP, p. 7. Viewed with both directives in mind, the fact that the outage reporting system was unusable by customers during 20 out of the first 34 hours following the onset of Tropical Storm Isaias is, categorically, a failure.[43]

While Eversource contends that the number of customer interactions caused by Tropical Storm Isaias was "unexpected" and "unprecedented," the company's ERP was designed to ensure that the company be prepared for just such an event and could scale to meet the needs of its customers accordingly. Specifically, Eversource's ERP states that systems designed for use during and after an emergency event should be flexible, reliable, and scalable in order to function in any type of event, regardless of cause, size, location, or complexity. Further, it states that such systems should be suitable for emergency operations that are limited to a single location or widespread across multiple geographic locations or operating companies. Eversource ERP, p. 63. In fact, the company's ERP was initially developed in response to two storms in 2011 with a similar number of trouble spots and customer outages as Tropical Storm Isaias.

Eversource specifically points to the number and type of customer interactions as "unexpected" due to the combined volume across all of its communications channels and the impact of the COVID-19 pandemic. Contrary to this assertion, however, is Eversource's admission that it was aware well before August 2020 that most customers would be at home because of the pandemic. Tr. 12/22/20, pp. 1249-1250. Indeed, Governor Ned Lamont first issued a Declaration of Public Health and Civil Preparedness Emergencies on March 10, 2020.[44] That emergency declaration extended through the summer and into August 2020, the effects of which the company was well aware of as both of the EDCs experienced drastic increases in electricity demand from residential customers persisting through the spring and summer of 2020. See, Docket Nos. 20-01-01 and 20-01-02.

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[43] During and after Tropical Storm Isaias, customers and public safety priority calls experienced "intermittent busy signals/inability to get through to Eversource agents," as well as "access issues" on web outage reporting, mobile app, 2-way texting, and "intermittent error messages" on 2-way text and mobile app. Eversource Response to Interrogatory LCG-87. The Authority understands this language to mean that these communication channels were unusable by customers, or at a minimum disrupted.

[44] See, Declaration of Public Health and Civil Preparedness Emergencies, March 10, 2020, https://portal.ct.gov/-/media/Office-of-the-Governor/News/20200310-declaration-of-civil-preparedness-and-public-health-emergency.pdf.

Put simply, Eversource knew or should have known that there may be higher usage on its digital and telephone channels as a result. Eversource knew or should have known that as customer reports fail to register in one channel, the customer will attempt to report outages through other channels based on its experience with the November 2017 Storm (and common sense). Docket No. 16-12-37, Tr. 12/20/17, p. 67. Similarly, Eversource knew or should have known that customers interact more with their preferred digital channels, especially mobile based ones like texting and mobile apps, since management was aware of this trend following the November 2017 storm. Id. In short, if the number of customer interactions was at all "unexpected" or "unprecedented," then the failure falls to Eversource for not reasonably anticipating such an outcome (indeed, emergency events by their nature will include unexpected and unprecedented occurrences), as the ERP clearly obligates the company to be prepared to meet the standards of acceptable performance outlined therein for a storm of even greater magnitude than Tropical Storm Isaias.

Eversource also argues that the company's telephone and digital channels were not inoperable or unavailable, as the system was simply overloaded and either response times were slowed or the system failed to record customer outages. Connor PFT, p. 20. The distinction offered by Eversource is meaningless when viewed from the perspective of the customers who repeatedly attempted – and failed – to record an outage. Whether the system was inoperable, unavailable, slow, or failing to record reported outages, the outcome for customers is the same – frustration and a lack of successful communication. Troubling still is the company's focus on the semantics of its communication systems' effectiveness, and not on the real impact the company's subpar communication systems had on customers during and after Tropical Storm Isaias.

Eversource remarks that, over the course of the storm, it sent more than 5 million outbound messages to customers, the public, state and local officials, and employees and contractors. Eversource Response to Interrogatory LCG-109, Attachment 1. Of these, roughly 4.8 million were successfully delivered. Eversource Response to Interrogatory LCG-120, Attachment 1. Of all the outbound communications delivered, 30%, or nearly 1.5 million, were automated text, email, or voice messages with typical automated response information that was general in nature (e.g., customer care number, outage reporting issues, storm characteristics) or of a system-wide level of detail (e.g., total number of outages, total number of crews working, global restoration times), with little to no information specific to individual customers. Id.; Eversource Response to Interrogatory LCG-227, Attachment 1.

The remaining 3.3 million outbound communications were storm-specific messages delivered by phone, email, text or social media. Eversource Response to Interrogatory LCG-109, Attachment 1. These messages were sent two or three times daily over the course of the restoration process and included such information as general damage levels inflicted on the system by the storm, safety information for customers regarding downed wires, information on how to report outages, and acknowledgements that outage reporting channels were experiencing disruptions. Eversource Response to AG-37, Attachments 2, 3, and 8. On August 6, 2020, Eversource first relayed global ETR information to customers. Id., Attachment 3, p. 6. Eversource began to include such specific information about restoration efforts, like the

number of available crews, starting on the evening of August 6, 2020, via a press release, and by the evening of August 7, 2020, via phone and text. Id., Attachment 8, p. 10, Attachment 2, p. 2, and Attachment 3, p. 6.

While it is true that the company was still able to issue outbound communications, it is important to keep in mind a number of things. *First*, the raw number of messages is indicative of the number of people receiving the message and nothing more. Eversource sent a total of 27 different sets of manual communications from August 4 through August 12, 2020, which equates to roughly three distinct sets of messages per day. Eversource Response to Interrogatory LCG-120 Attachment 1. *Second*, the fact that these are issued in the volume they are without disruption is unimpressive in itself as Eversource controls when and how such communications are sent. Therefore, while Eversource properly met its standard of acceptable performance for its outbound messaging, this does nothing to mitigate the Authority's findings regarding the company's failure to adequately manage inbound communications. These are two distinct methods and processes of communication, to be treated and evaluated as such.

For appropriate context, and also indicative of the Authority's finding that Eversource knew or should have known to expect the communications traffic during Tropical Storm Isaias as discussed herein, it is also helpful to compare Eversource's call center and IVR system performance in comparison with their performance during Superstorm Sandy. During Superstorm Sandy, Eversource offered three channels for a customer to report outages: (1) a phone call into the contact center; (2) a phone call through its IVR system; or (3) reports through its website. Tr. 12/22/20, p. 1215. Since 2017, the company added two-way texting and a mobile application, both of which allowed for outage reporting and monitoring. Tr. 12/22/20, p. 1301. The mobile app was used more frequently than call center and IVR services during and after Tropical Storm Isaias. Eversource Response to Interrogatory LCG-109, Attachment 1.

The tables below illustrate call numbers and standard industry performance metrics, such as Average Call Answer (ASA) in seconds and abandoned call rate (ACR), or the percentage calls that are abandoned by customers before reaching a representative for the two 2011 storms, as well as for Tropical Storm Isaias.

Table 34. Storm Irene Call Center and IVR Performance

Date	Calls Handled (CSRs and IVR)	ASA (s)	ACR%	Peak CSRs[45]
8/27/11	7,625	50	2.0	35
8/28/11	387,376	67	2.0	270
8/29/11	219,930	18	0.7	323
8/30/11	113,389	10	0.4	395
8/31/11	93,409	5	0.3	369
9/01/11	70,702	7	0.2	287
9/02/11	53,058	18	0.7	284
9/03/11	28,550	8	0.2	201
9/04/11	17,408	2	.07	153
9/05/11	9,172	3	0.1	121
9/06/11	32,951	191	6.8	145

2011 Storms Decision, pp. 24-25.

Table 35. 2011 October Nor'easter Call Center and IVR Performance

Date	Calls Handled (CSRs and IVR)	ASA (s)	ACR%	Peak CSRs
10/28/11	14,747	14	1.3	131
10/29/11	217,887	196	3.9	197
10/30/11	234,204	71	1.7	231
10/31/11	126,012	4	0.1	320
11/01/11	118,587	6	0.3	361
11/02/11	100,765	14	0.5	361
11/03/11	76,177	13	0.4	325
11/04/11	68,553	40	1.2	334
11/05/11	47,853	48	1.2	236
11/06/11	42,655	51	1.7	205
11/07/11	39,935	7	0.6	387
11/08/11	22,285	7	0.2	312
11/09/11	17,772	19	0.7	299

2011 Storms Decision, pp. 25-26.

[45] "Peak CSRs" represent the number of customer service representatives available.

Table 36. Tropical Storm Isaias Call Center and IVR Performance

Date	Calls Handled (CSRs and IVR)	ASA (s)	% Abandoned	Peak CSRs
8/4/20	46,785	1156	73	299
8/5/20	102,491	307	23	474
8/6/20	51,849	233	16	299
8/7/20	36,460	451	24	301
8/8/20	25,485	25	2	275
8/9/20	17,136	49	3	270
8/10/20	17,173	90	5	341
8/11/20	12,385	6	1	336
8/12/20	3,585	5	1	311

Eversource Response to Interrogatory LCG-109, Attachment 1.

Consider the above historical data: despite having more CSRs during Tropical Storm Isaias than in the 2011 Storms, and despite having a newer IVR system at the time, Eversource during the 2011 Storms: (1) handled more calls; (2) saw fewer customers abandoning calls; and (3) had a much shorter agent call answer time. Conversely, in the aftermath of Tropical Storm Isaias, not only could customers inquiring about outages not get through in a reasonable time, but many FPS calls were dropped, received busy signals, or had poor call quality, as noted above. Busy signals, incomplete transactions, slow response, and long wait times all negatively affected the customer and emergency operators' experience.

As noted above, the company's ERP mandates that Eversource ensure that these communication systems scale to event type, event size, and event complexity. Indeed, the more intense the storm, the more complex the storm, and the more damaging the storm, the more crucial these systems are for customers. Customers need to know that their outage has been reported. Customers need to receive accurate restoration information. While the company claims that the outage reporting system being down did not impede its restoration efforts, such an assertion obfuscates the true usefulness of the system (indeed, if that were the case, the Authority would have a hard time justifying the prudence of such a system); rather, the true utility of the outage reporting system is in providing customers with timely and accurate information, as is required by its ERP.

Additionally, emergency services *need* to be able to reach operators through the emergency channels, particularly in response to more impactful events such as Tropical Storm Isaias. The fact that the FPS-1 channel was down for any amount of time, let alone immediately following the storm, and that information regarding an alternative means of communicating FPS-1 events was not clearly or timely communicated to all local and state leaders, represents a clear threat to public safety.

Therefore, a review of the record evidence yields this finding: the Eversource outage reporting channels, customer IVR, and call center channels were not designed to be flexible, reliable, and scalable, and did not function properly in response to

Tropical Storm Isaias as required by the company's ERP. Eversource ERP, p. 63. Further, Eversource admitted that the digital channel platforms were not scaled to meet the demand of larger transactional volumes associated with Tropical Storm Isaias. Eversource Response to AG-33, Attachment 3, p. 22. Thus, the Authority finds that Eversource's IVR, call center, and digital channels were not reliable as required by the ERP.

Additionally, the Authority finds that Eversource has not updated its Customer Group Emergency Response Program Plan in accordance with its own standards. Eversource has not revised or approved the plan since October 20, 2016. Eversource Response to Interrogatory LCG-102, Attachment 1, p. 1. As stated previously, the plan should be reviewed: (1) at least annually; (2) after it is used during an actual event; and/or (3) after it is used during an exercise. Id., p. 22. The plan has not been reviewed annually, nor does it appear to have even been reviewed following the November 2017 Storm during which the Company encountered capacity constraints on several communications channels; certainly, at a minimum, no revisions were made to the CG ERP. Id., p. 1.

Moreover, key information necessary for storm response has not been incorporated into the CG ERP. For example, Eversource changed its telephony platform in 2016, yet that change has not been reflected in the plan. Nor have the new two-way texting and the mobile app communications channels (added in 2017 and 2018, respectively) been incorporated into the plan. Eversource Response to Interrogatory LCG-507; Eversource Response to Interrogatory LCG-102, Attachment 1, p. 58. Nor has the plan been updated to include the look-up process for Estimated Time of Restorations for the customer group personnel. Eversource Response to Interrogatory LCG-102, Attachment 1, p. 63. The CG ERP also has not been updated since Eversource redesigned its Web and Outage reporting system in 2018. Eversource Response to Interrogatory LCG-507.

Had the CG ERP been reviewed for accuracy as is required, the company may have identified overload issues and would have been more prepared for the high usage of the new digital channels, potentially even avoiding the disruptions. Also, had the company performed a large-scale exercise with up to 70% customers experiencing a long-term outage – as it is required to perform every three years – it may have uncovered that its inbound communications systems would become overloaded. Performance Standards Decision, Appendix A, p. 7. As stated above, Eversource performed tests at volumes of Superstorm Sandy plus 20%. During Superstorm Sandy Eversource had approximately 50,000 customers out at peak (see, *supra*, Table 24). Increasing that figure by 20% equates to 600,000 (1.2 x 500,000) peak outages. 600,000 customers is less than 50% of Eversource's total number of customers (600,000 / 1,300,000 = 46%). A more reasonable test would have based on peak outages of 70%, as required by the Performance Standards Decision and discussed above, or 910,000 customer outages (70% x 1,300,000). The company performed no such exercise, and thus was unprepared when its new digital channels and new IVR system failed during the first 24 - 36 hours of a catastrophic event.

The company further failed to meet acceptable performance standards by not stress testing its communications channels at a level higher than its current level of

Superstorm Sandy plus twenty percent. Eversource had ample reason to believe inbound communications would be much higher than in Superstorm Sandy, as discussed above. Despite that knowledge, the company last stress tested its call and IVR systems in 2016. Eversource Response to Interrogatory LCG-367. Thus, the last IVR and phone system stress test was performed before the two-way texting and the mobile app channels were added, and the web and outage reporting systems updated. Id.; Tr. 12/22/20, p. 1291 and 1301. Eversource last tested its two-way texting channel in 2017 after the November 2017 Storm. Eversource Response to Interrogatory LCG-367. Most troubling, Eversource has not *ever* stress tested all of its communications channels together (digital and phone and IVR), outside of the November 2017 Storm when the company experienced capacity constraints, and certainly has never tested all of its communications channels together with the re-designed Web and Outage reporting system in place.

For all of the reasons cited above, the Authority finds that Eversource has not met its standards of acceptable performance with respect to its CG ERP nor with respect to its ERP. Further, the Authority finds that reasonable management of the operation would not have allowed these deficiencies in outage reporting and customer communications. Therefore, the Authority finds Eversource's actions, or omissions, in relation to the aforementioned issues to be both unreasonable and imprudent.

The Authority directs Eversource to immediately review and update its CG ERP, to include at a minimum the updates made to its communications channels. The Authority further directs Eversource to perform stress testing on its inbound and outbound communications channels by July 2021, and every three years thereafter, at levels at least up to a high-side Event Level 2, with up to 70% customer outages at peak. This is in accordance with Section 2.c.ii of the Performance Standards Decision.

3. UI Performance

Customers can contact UI through the following communications channels to report or to inquire about a power outage. Table 37 below shows those channels and the services they provide.

Table 37. UI's Customer Communications Channels

Channel	Options
Customer Care Phone	Emergency and Non-Emergency Phone Lines
Phones - Automated (IVR)	Report an outage Check outage status
Social Media	Facebook Twitter
Email	Email inquiry
Website	Report outage Check outage status View outage map and table
Mobile App	View and report outage View outage map
Fax	Inquiries via fax
Two Way Text	Report an outage - Text OUT Check outage status - Text STAT

UI Response to Interrogatory LCG-106.

UI operates a single call center located in New Haven, Connecticut. UI can support about 3,000 calls per hour through the company's 299 dedicated inbound telephone trunks. UI Response to Interrogatory LCG-104.

UI uses an IVR system, which provides the ability for customers to report an outage and receive estimated restoration times in a self-service manner, using an account number, phone number, or social security number. Linked with the OMS, the IVR delivers real-time outage information to callers. Id. The IVR also provides the functionality to provide system-wide announcements to all callers. Id.

When call volumes escalate during and after a major storm, UI also has the option of allocating calls to a third-party, high-volume-call-answering (HVCA) service. Id. The HVCA service offers virtually limitless capacity when needed during a large storm or outage event. UI implemented its HVCA service following Superstorm Sandy in 2012. UI Response to Interrogatory RSR-50.

During a major storm, UI sets up a dedicated Priority 1 hotline to the UI Dispatch center to handle all life-threatening situations. Wires down calls from fire, police, and other emergency personnel are handled by UI PD/FD Call Takers, working under the direction of the Wires Down Branch Director. Reports of downed wires and other emergencies are entered into OMS and prioritized for dispatch to the Wires Down Supervisor or Wires Down Stand-By personnel. UI Response to Interrogatory LCG-114.

UI also establishes a hotline for all major accounts, including municipalities, state and federal accounts, and hospitals, which is also handled by UI Dispatch. UI Response to Interrogatory LCG-114.

During Tropical Storm Isaias, UI's Customer Contact Center handled more than 168,000 calls from customers, with the majority of calls arriving during the first two days of the storm response. UI Response to Interrogatory LCG-54, Attachment 1. The Contact Center remained open on a 24-hour basis from August 4. 2020 through August 12, 2020. The following table shows the number of calls handled by UI's IVR system and by customer service representatives for each day of the storm response. Self-service automation, either through the IVR or the HVCA, handled 84% of total calls during the storm.

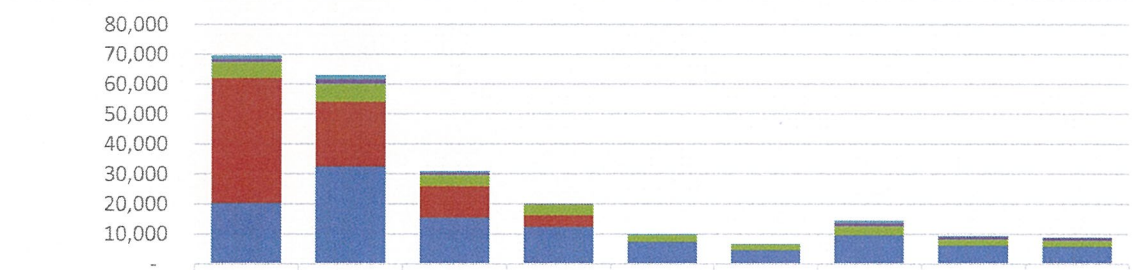
Table 38. Total UI Calls Handled

Date	UI IVR	HVCA	Reps	Total	% IVR Handled
4-Aug	20,383	41,712	6,427	68,522	91%
5-Aug	32,599	21,710	7,331	61,640	88%
6-Aug	15,501	10,510	4,583	30,594	85%
7-Aug	12,471	3,826	3,713	20,010	81%
8-Aug	7,513	0	2,277	9,790	77%
9-Aug	4,733	0	1,808	6,541	72%
10-Aug	9,778	0	3,990	13,768	71%
11-Aug	6,243	0	2,906	9,149	68%
12-Aug	5,915	0	2,781	8,696	68%
TOTAL	**115,136**	**77,758**	**35,816**	**228,710**	**84%**

UI Response to Interrogatory LCG-119, Attachment 1.

The following figure summarizes the number of calls offered, handled, and abandoned each day of the company's storm response.

Figure 7. Customer Calls to UI



	4-Aug	5-Aug	6-Aug	7-Aug	8-Aug	9-Aug	10-Aug	11-Aug	12-Aug
Abandoned Calls	982	1,388	334	191	132	76	757	229	143
3rd Party Agents	1,039	1,351	747	34			1,149	865	801
UI Agents	5,360	5,980	3,834	3,677	2,275	1,811	2,840	2,041	1,980
HVCA	41,712	21,710	10,510	3,826	-	-	-	-	-
UI IVR	20,383	32,599	15,501	12,471	7,513	4,733	9,778	6,243	5,915

UI Response to Interrogatory LCG-145, Attachment 2.

The majority of customer calls, especially during the early days of the tropical storm response, were handled in an automated manner via UI's IVR or the HVCA. Call volumes were sustained at a very high level on August 4 and 5, 2020, but declined significantly beginning on August 6, 2020. Collectively, UI's IVR and HVCA tools handled 84% of total calls from August 4 through August 12, 2020. Automation handled nearly 200,000 calls, one-third of them by the HVCA, during the first four days following Tropical Storm Isaias' arrival.

Table 39 depicts the maximum available call takers for each day of the storm event, the number of calls handled each day, and percentage of callers abandoning in queue.

Table 39. UI Daily Call Taking Metrics

Date	Max Call Center Reps	ASA (s)	Calls Handled	% Abandoned Calls
4-Aug	77	14	6,399	20%
5-Aug	92	30	7,331	30%
6-Aug	89	15	4,581	11%
7-Aug	75	12	3,711	5%
8-Aug	56	12	2,275	5%
9-Aug	38	12	1,811	4%
10-Aug	53	160	3,989	33%
11-Aug	39	98	2,906	12%
12-Aug	42	43	2,781	6%
TOTAL			**35,816**	**19%**

UI Responses to Interrogatory LCG-117 and LCG-145.

From 10:27 a.m. until 12:40 p.m. on August 5, 2020, UI's website was inaccessible to customers due to an issue with the applications supporting the website. Intermittent issues continued with the website from approximately 2:00 p.m. until 5:15 p.m., during which time the website was unavailable to customers for 10-minute increments on three separate occasions. UI 30-Day Storm Report, pp. 35-36.

The company also lost some capabilities of its OMS system, including the ability for its OMS system to update to its website, on August 6, 2020, from 2:30 p.m. until 11:00 p.m., due to a power outage at its IT Data Center. Id., p. 36; Tr. 12/16/20, p. 599. According to UI, the loss of its OMS functionality did not result in delays to outage reporting or restoration as most outages had already been reported. Tr. 12/16/20, p. 601. Further, all crews were already dispatched with assignments during the relevant period. Id.

The power outage at its IT Data Center did, however, limit the ability of 12 of UI's call center representatives who were working remotely, as well as UI's third-party call center, to take calls. Tr. 12/16/20, p. 602. In response, the UI call center

representatives relocated to UI's call center office. Id. UI also activated its high-call volume service for the hours that the third-party call center was available. Id.

There were numerous public comments detailing either no estimated restoration time or inaccurate restoration times from UI. Residents of Fairfield provided public comment that UI never provided estimated restoration times after multiple inquiries. See, e.g., Bass Letter, August 20, 2020. Other Fairfield residents experienced long hold times and incorrect power restoration updates. See, e.g. Sherman Letter, August 21, 2020. There were other public comments that reiterated not being able to reach a customer service representative or get a restoration update. See, e.g., Cronin Letter, August 23, 2020.

a. Analysis and Determination

The Authority finds that UI's use of its HVCA was an important asset in managing both the high volume of calls early in the storm response and to mitigate the impact of the power loss that affected UI's third-party call center. Tr. 12/16/20, p. 602. During the 12 hours that access was limited to the third-party call center, customers could continue to report outages in a self-service manner until restoration of system access. Id. The Authority reviewed UI's performance in the face of this system failure and finds that the company took appropriate action to respond to the Data Center loss and to mitigate impacts to customers calling in to the call center. The Authority also finds that the IT Data Center loss did not materially affect UI's ability to perform restoration, since all assignments had been made to restoration crews at the time of the outage.

Ultimately, the Authority finds that UI generally met the standards of acceptable performance in relation to its customer communications during Tropical Storm Isaias. Nonetheless, the Authority directs UI to improve the resilience of its own communications facilities and applications in a number of ways to ensure that its OMS system is not vulnerable to outages during future emergency events and to otherwise improve its ability to take calls from customers throughout storm response efforts.

Additionally, the Authority is concerned that the company's website was inaccessible to customers for a two-hour period of time on August 5, 2020. While this intermittent availability of its website was not as pervasive as experienced by Eversource, the Authority directs UI to improve its website capacity so that this function is available to customers at all times, since the outage map and other website features are very important tools to obtain timely information from the company.

Further, UI's call-taking ability late in the storm response is an area requiring improvement. Table 39 above shows that UI had the highest rate of abandoned calls on August 10, 2020. On Monday August 10, 2020, UI began taking calls related to billing inquiries, bill payment arrangements, and other non-storm related inquiries. Tr. 12/18/20, pp. 861-862. UI does not take non-storm related calls during the early portions of its storm response. Id. As evidenced by the cited table, once UI began taking non-storm related calls, a backlog formed, resulting in longer wait times to speak with a customer service representative, which in turn led to roughly a third of customers abandoning the call. Id., p. 862. UI stated that this phenomenon is not unusual for large storm events. Id. Since this is a known phenomenon and UI knows in advance when it

will begin to take non-storm calls, UI should have available more call takers during this period. Accordingly, to minimize the rate of abandoned calls during future events, the Authority directs UI to proactively account for this expected call volume and to increase its available call takers (i.e., customer service representatives) for the first two days after it reopens its call center to non-storm inquiries following a major storm event.

Further, the Authority has reviewed a number of public comments from UI customers voicing their displeasure with either receiving inaccurate restoration times or the inability to get information about restoration generally. Thus, the Authority directs UI to investigate and to provide actionable recommendations in its next ERP for improving the number of dropped calls that customers experienced early in the response to Tropical Storm Isaias.

F. FURTHER DIRECTIVES RELATED TO SECTIONS IV.C. THROUGH IV.E.

The Authority's analysis in Sections IV.C. through IV.E. outline how Eversource and, in certain more limited instances, UI failed to meet acceptable standards of performance in managing its municipal liaison program, executing its Make Safe responsibilities, communicating critical information to its customers, and meeting its obligation to secure adequate resources in a timely manner to protect the public safety and to provide for the overall public interest in response to Tropical Storm Isaias. Ultimately, based on that analysis, the Authority concludes that neither company met the Authority's or their respective customers' reasonable expectations for managing a major storm event. Further, based on the same analysis, it is clear that each company's ERP must be updated to ensure that the companies do not repeat the same mistakes that occurred in response to Tropical Storm Isaias (and the 2011 Storms) during future storm responses. As such, the Authority orders the EDCs to update and amend their ERPs as outlined below.

1. Update ERPs to Include Necessary Resources

Due to the inadequate staffing levels in a number of response areas discussed in Sections IV.C. (e.g., lineworkers, damage assessors, etc.) and IV.D. (e.g., Make Safe crews, liaisons, etc.), the Authority hereby orders the EDCs to update their respective ERPs to specify the necessary resource levels to ensure each company is able to provide for the public interest by performing necessary response (e.g., Make Safe, FPS, etc.) and restoration activities in a timely and efficient manner. Accordingly, the EDCs are required to include the number of total, internal, and external resources to be available at the onset of the storm, as well as the peak number of crews expected during the storm restoration process. The EDCs are directed to include resource levels for each event level for the following categories of resources by number of crews and full time equivalent staff:

a. Line Crews;
b. Service Crews;
c. Damage Assessors;
d. Tree/Line Clearance/Vegetation Management Crews;
e. Municipal liaisons; and
f. Large customer account representatives (See, *infra*, Section IV.G.1.).

2. Improvements to Communications with Municipalities

The analysis provided in Sections IV.C. and IV.D. demonstrates that improvements must be made to the communications between the EDCs and their municipal partners. Specifically, public comment and testimony by municipal officials emphasized the importance of more actionable information early in the storm response efforts. See, e.g., Tr. 12/23/20, pp. 1511-1512; Tr. 12/14/20, p. 37 and 60; Eversource Response to Interrogatory LCG-476, Attachment 1.

Section 2.b.ii of the Performance Standards Decision requires that the EDCs develop a standard template that must be relayed to the municipalities to meet their needs for relevant information. Performance Standards Decision, Appendix A, p. 6. The Authority directs the EDCs to perform outreach to municipalities to identify the most relevant information for municipal leaders and best form(s) (e.g., call from municipal liaison, email from company and/or liaison, email and call from liaison, etc.) of communicating such information during the first 48 hours of a storm response. The type and form of the information provided should be tailored for storms of Event Level 3 and higher, such as Tropical Storm Isaias, Superstorm Sandy, and the 2011 Storms. The EDCs shall summarize the input received from the municipalities in a report to the Authority, which the Authority will subsequently release for public comment. The report shall also include a proposed model template and communications guidelines to be used during future storms to provide to towns the information deemed most useful and actionable. The EDCs are directed to submit for the Authority's review, modification, and approval the report, along with the proposed template and guidelines. Once approved, the EDCs shall communicate any required changes to the current communications protocols to all municipal leaders in their service territory and incorporate such protocols in to the EDCs' respective ERPs.

3. Improvements to Reporting Blocked Roads

During the course of the investigation in this proceeding, the Authority discussed at length the manual process by which Eversource and the municipalities communicate wire down events and blocked roads. The current standard, as articulated in the ESF-12 Annex, requires that the municipalities record each blocked road location, condition, and priority classification using the Utility Blocked Road Form. ESF-12 Annex, pp. 38 and 46. Once the form is completed by the municipality, the form is provided to the municipal liaison who, in turn, passes the form on to a customer service representative, who, in turn, manually enters the information into the OMS. See, Tr. 12/21/20, pp. 1010 and 1124. In addition to this manual entry process, Eversource also requires that municipalities call in the blocked roads to its dispatch center. Eversource Response to Interrogatory RSR-27, Attachment 3, p. 10. In assessing its response to Tropical Storm Isaias, the company concluded that lists and emails were not effective in communicating blocked roads. Eversource 60-Day Event Report, p. 10. In particular, Eversource noted that the information provided in the Utility Blocked Roads Form quickly becomes stale during a large event like Tropical Storm Isaias. Tr. 12/21/20, p. 1016.

In its 60-Day Event Report, Eversource identifies a web-based portal for entering blocked roads directly into the OMS as a potential solution to the issues presented by the current paper and emailed list-based system. Eversource 60-Day Event Report, pp.

10 and 11. While the Authority agrees that the manual process for reporting blocked roads is inefficient and should be updated in order to better manage the sheer amount of damage locations in real-time, the Authority is not confident that the company will be able to effectively implement and operate a resilient web-based system in the aftermath of Event Level 3 and higher storms, based on the performance of the company's web channels during both the November 2017 Storm and Tropical Storm Isaias. Accordingly, the Authority will monitor Eversource's progress as it implements this system and further will require that the new communication channel must be included in any capacity testing alongside other communications channels.

The Authority also directs UI to follow Eversource's progress in assessing the implementation of a similar web-based platform for reporting blocked roads. Nothing in this subsection shall be construed as pre-approving recovery for any expenditures related to a web-based blocked road reporting system for either company. The cost associated with any such system will be subject to a later prudence review through a contested rate proceeding.

In the near-term, both EDCs shall work with municipalities to identify ways in which reporting blocked roads could be improved using the current system. The EDCs shall summarize the input received from the municipalities in a report to the Authority, which the Authority will subsequently release for public comment. The EDCs shall also include in the report proposed improvements to the current reporting system. The EDCs are directed to submit for the Authority's review, modification, and approval the report and the proposed improvements. Once approved, the EDCs shall communicate any required changes to the current reporting system to all municipal leaders in their service territory and incorporate such changes in to the EDCs' respective ERPs.

G. ADDITIONAL INVESTIGATION TOPICS

The Authority's investigation in this proceeding was expansive in scope and depth, covering all facets of the EDCs' current storm preparation and response protocols. As such, Sections IV.A. through IV.E. do not represent the totality of the Authority's investigation findings, but rather the Authority's analysis and findings with respect to those parts of the EDCs' preparation and response to Tropical Storm Isaias with clearly defined standards of acceptable practice. As the Authority's investigation expands beyond the scope of currently defined standards of acceptable performance, it stands to reason that new standards of acceptable performance and storm response practices must be developed to ensure that the EDCs respond to future emergency events in a way that meet the Authority's and ratepayers' reasonable expectations. Two such areas, discussed below, that require clearly defined standards of acceptable performance for future storm responses are: (1) outreach to large customers (i.e., key or major accounts); and (2) outreach to medical hardship customers. Additionally, based on the briefing provided by the OCC, the Authority directs the EDCs to adopt new practices regarding storm contractor timesheets and the identification of cost saving measures for future storms.

1. Outreach to Large Customers

Under normal operations (i.e., Blue Sky Days), large EDC customers are assigned dedicated account representatives. These account representatives provide major accounts with both a resource attuned to their needs and a direct line to the companies. Tr. 12/16/20, p. 674; Tr. 12/22/20, pp. 1330-1331. During emergency events, the account executives become municipal liaisons or liaisons to critical accounts such as hospitals and other utility companies. Tr. 12/18/20, pp. 707, 708, and 747; Tr. 12/22/20, p. 1339.

UI has approximately 225 major customer accounts. Tr. 12/18/20, p. 746. During major storm events, UI provides a hotline for major customers to call that is staffed 24/7 by a major accounts coordinator. Tr. 12/18/20, pp. 708 and 746. Eversource has 1,467 large customer accounts. During major storm events, Eversource employs 20 account representatives to manage large customer accounts, or approximately one representative for every 73 accounts. Tr. 12/22/20, p. 1293. Eversource does not keep records of its communications with its large accounts during major storm events. Tr. 12/22/20, p. 1333.

Neither Eversource nor UI conducts official surveys or after action reports with large/major accounts after emergency events to assess storm performance with respect to those customers. Tr. 12/18/20, pp. 756 and 871; Tr. 12/22/20, pp. 1332-1334.

Based on the above information, CIEC contends that since account executives are reassigned to municipal liaison duties during major storm events, there remain too few account executives to adequately meet the demand of large customer accounts. In short, CIEC believes that the ratio of account executives to large customer accounts during storm events should be lower. CIEC Brief, pp. 6-7. CIEC also argues that there is no obvious and tailored preparedness and response communications from the EDCs to large customer accounts and that a formal process ought to be established in the EDCs' ERPs. CIEC Brief, pp. 11-12.

For their part, UI states that its account executives have real-time outage and restoration information and that the company did not recall any complaints regarding Tropical Storm Isaias communications. Tr. 12/18/20, pp. 746-749 and 756. Similarly, Eversource touts a 96% satisfaction rating by its large accounts with their Eversource account representative. Tr. 12/22/20, p. 1278.

The Authority agrees with the CIEC that there appears to be a high ratio between major accounts and representatives dedicated to those accounts during an emergency. The fact that Eversource and UI do not conduct formal after-action reporting with the major accounts leaves the Authority unable to confirm whether the EDCs are providing a sufficient number of representatives to manage the needs of large customers. The Authority also agrees with CIEC that the EDCs should have a more proactive and formalized approach to communications with large customer accounts prior to, during,

and after emergency events by which the Authority and other stakeholders could better assess the companies' performance in this area.

Accordingly, the Authority directs the EDCs to collaborate with CIEC to identify solutions to better support major accounts during emergency events. The EDCs shall also collaborate with CIEC on developing a communications plan and after-action review plan for implementation in response to future storms. The EDCs shall report this information in conjunction with CIEC for the Authority's review, modification, and approval. Upon approval, the EDCs shall incorporate any relevant changes or additions into their ERPs.

2. Outreach to Medical Hardship Customers

Eversource and UI typically provide customers whom have critical illnesses, or those requiring life sustaining equipment (i.e., medical hardship), with advance notice of an impending storm and the potential for losing power. In preparation for Tropical Storm Isaias, UI began calling medical hardship customers at approximately 12:00 p.m. on August 4, 2020, mere hours before the storm was expected to reach Connecticut. Id., p. 864. UI did not follow-up with medical hardship customers after the initial notice was issued, which is UI's practice during events resulting in sustained outages. Id., pp. 858-859. Conversely, Eversource began calling medical hardship customers on August 3, 2020, the day before the storm was expected to hit, and checked in with their medical hardship customers on a daily basis during the storm response. Tr. 12/22/20, p. 1259.

Bridgeport provided related testimony regarding medical hardship customers in their town and the availability of information from UI. Specifically, Bridgeport stressed the importance of the EDCs providing information about which medical hardship customers residing in their town were without power, so that the town could properly respond if necessary. Tr. 12/23/30, p. 1524.

Given the devastating consequences that could result from inadequate coordination and communications in this area, the EDCs' storm communications must, going forward, include contact with medical hardship customers before, during, and after a major storm. The Authority directs UI and Eversource to memorialize medical hardship customer outreach and communication processes in their respective ERPs, and to file such changes and additions for the Authority's review, modification, and approval. Specifically, the EDCs must memorialize a process for: (1) contacting all medical hardship customers more than 24 hours before the onset of a major storm; (2) tracking the status of electric service to medical hardship customers; (3) regularly updating each municipality served by the EDC of the medical hardship customers without power in their town; and (4) providing daily communications to medical hardship customers without power during the storm restoration process.

3. Contractor Timesheet Modifications

The OCC recommends that the Authority direct the EDCs to update their timesheet template used for storm response contractors. The OCC notes that UI's timesheets do not include information necessary to understand what work was being performed. Specifically, UI's timesheets lack information such as the nature of the work performed, the duration of the completed assignment, the beginning and/or ending times of the work performed, and the locations of such work. UI Responses to Interrogatories OCC-30 and OCC-33. UI argues that it is sufficient that management knows what assignments are being done and it is unnecessary for timesheets to reflect this information. Tr. 1/4/21, pp. 1596-1597. There is a similar lack of detail requested through Eversource's timesheet templates, which typically record only basic information such as dates, names, and hours worked. Eversource Confidential Response to OCC-31; Eversource Late File Exhibit No. 44, Attachment 1. Eversource does not require a contractor to include a description of the work performed on timesheets. Tr. 1/6/20, p. 1651.

The OCC argues that additional details from mutual aid and other contractors are necessary for the EDCs, as well as all stakeholders, to more effectively review whether the costs submitted for payment and recovery are reasonable and prudent. OCC Brief, pp. 29-31. The OCC further argues that the current timesheet template effectively requires the Authority, the OCC, and other Parties to take the EDC's word that external crews are performing assigned work in a reasonable and timely manner. Id. Understood from the context that contractor costs make up the overwhelming major of costs associated with any storm response, it is reasonable for the OCC to request, on behalf of all ratepayers, a more detailed accounting of the work for which cost recovery is sought.

Accordingly, the Authority directs the EDCs to record in timesheets or other documentation associated with external or contractor line crews and damage assessors the following minimum amount of information per shift for all future storms: number or amount of work performed; description and location of work performed; beginning and ending locations; paid time spent traveling at start and end of shift; paid time traveled for mobilization and demobilization; paid stand-by time; employee names; dates; and hours worked. Further, the Authority directs the EDCs to provide supporting documentation and comparable details to those requested herein, to the extent available, when filing their final costs associated with their response to Tropical Storm Isaias.

4. Identifying Cost Saving Measures

In its brief, the OCC contends that the EDCs should be constantly evaluating the efficiency of its storm response to identify cost savings opportunities of its response activities. OCC Brief, p. 39. The OCC provided conceptual examples, including deploying more damage assessors at the outset of a storm to more quickly identify trouble spots and make restoration planning activities more efficient. Id. Neither UI nor Eversource actively consider ways to quantify or otherwise evaluate cost savings in after-action reports. UI Response to Interrogatory LCG-268; Eversource Response to Interrogatory LCG-174.

The Authority finds merit in the OCC's recommendation that the EDCs actively consider cost saving measures in after-action storm analysis and reports. The Authority notes that in the Performance Standards Decision, the EDCs are required to submit an After Action Report including lessons learned within 60 days after the end of an event. Performance Standards Decision, Section 3.7. However, the Authority believes that the companies would likely benefit from additional time in evaluating potential cost saving measures, so that the companies may provide more detailed analysis on ways to improve the companies' performance during future storms, including potential solutions. Stakeholders would unquestionably benefit from this additional time, which would also allow the companies, the Authority, and stakeholders the time necessary to assess the companies' storm response and associated costs.

Accordingly, the Authority directs the EDCs to provide a report 90 days after the Authority's decision regarding cost recovery of a particular storm, identifying inefficiencies in the companies' response to that storm and analyzing potential opportunities for improving efficiencies or cost savings in the companies' response to future storms. The EDCs shall continue to identify lessons learned within their 60-day storm reports, and may identify areas for improved efficiencies and costs savings, as appropriate.

5. Storm Insurance Policies

DEEP recommends that the EDCs pursue storm insurance policies to mitigate the risk of increasing severity and frequency of storms due to climate change. DEEP Brief, p. 23. Without such insurance policy, DEEP is concerned that the high financial toll of severe storms will be passed on to ratepayers. Id.

With regard to climate change and severe storm mitigation techniques, UI employs switching capabilities in the system and capital projects focused on worst-performing circuits, and Eversource has installed stronger poles, cross arms and hardware, as well as flood mitigation and increased automation in the system. Tr. 12/16/2020, pp. 516-517; Tr. 12/21/2020, pp. 1100-1101.

When questioned about current insurance policies, both EDCs stated that they have $250 million general insurance policies, but neither of the policies cover infrastructure damage due to severe storms. UI Late File Exhibit No. 5; Tr. 12/21/20, pp. 1098-1099. Furthermore, neither EDC has a storm insurance policy, nor did they believe such policies are available for utilities. Tr. 12/16/20, pp. 518-519; Tr. 12/21/20, p. 1099. UI expressed a willingness to explore options for storm insurance policies.

Given the number and intensity of storms Connecticut has experienced in the last ten (10) years, and the risk of increasing frequency and severity of storms due to climate change, the Authority agrees with DEEP that that a storm insurance policy warrants further consideration. The Authority also notes that the increasing number of field infrastructure that the utilities deploy to mitigate the effects of storms is also subject to catastrophic storm damage. As such, the Authority directs Eversource and UI to coordinate with the State of Connecticut Insurance Department to review options for climate change related storm insurance policies. The EDCs are directed to submit to the Authority findings stemming from such meetings, including a list and description of

potential insurance policy options. The findings must also include whether the EDCs are considering adopting storm insurance policies, and if not, a description of the justifiable reasons, with supporting evidence, why holding a storm insurance policy is impractical.

H. ACCIDENT REPORTING

As noted in Section IV.G., the Authority's investigation in this proceeding was expansive in scope and depth, including topics beyond those discussed in Sections IV.A. through IV.E. As part of its investigation in this docket, the Authority conducted a review of the EDCs' incident reporting practices for the month of August 2020 to uncover any accidents related to Tropical Storm Isaias and to ensure that the EDCs' current reporting practices meet the General Statutes and Regulations of Connecticut. Conn. Gen. Stat. § 16-17 mandates that the Authority investigate "accidents, whether resulting in personal injury or not, as, in its judgment, require investigation." The Authority cannot perform this duty if the EDCs do not report accidents according to the standards established in the Regulations of Connecticut State Agencies (Conn. Agency Regs.) §§ 16-16-1 through 16-16-4.

1. Accident Reporting Requirement

Conn. Gen. Stat. § 16-16 states:

> Each public service company and electric supplier subject to regulation by the Public Utilities Regulatory Authority shall, in the event of any accident attended with personal injury or involving public safety, which was or may have been connected with or due to the operation of its or his property, or caused by contact with the wires of any public service company or electric supplier, notify the authority thereof, by telephone or otherwise, as soon as may be reasonably possible after the occurrence of such accident, unless such accident is a minor accident, as defined by regulations of the authority. Each such person, company or electric supplier shall report such minor accidents to the authority in writing, in summary form, once each month. If notice of such accident, other than a minor accident, is given otherwise than in writing, it shall be confirmed in writing within five days after the occurrence of such accident. Any person, company or electric supplier failing to comply with the provisions of this section shall be fined not more than five hundred dollars for each offense.

The Regulations of Conn. Agency Regs. § 16-16-2(b) defines minor accidents as:

> (1) Any structure fires or other cases of damage to a utility's facility or customer equipment, which were or may have been connected with or due to a utility's operation or equipment, where the public was not exposed to primary voltage;
> (2) Any accidents to employees or to members of the public which were or may have been connected with or due to a utility's operation, property or facility, including traffic accidents, resulting in

property damage of $50,000 or more, or in personal injury, whether or not hospitalization is required, that are not considered a major accident pursuant to subsection (a) of this section; and

(3) Any fatalities associated with any vehicular accident involving a utility's poles or other facilities but not involving the utility's employees or operation.

2. Eversource Performance

Eversource neither recorded nor reported any occurrence of a major accident during the month of August 2020. Eversource Responses to Interrogatories RSR-54, Attachment 1; RSR-35, Attachment 1; and LCG-36, Attachments 1 and 2. In its monthly accident report for the month of August 2020, filed pursuant to Conn. Agency Regs. §16-16-3, Eversource reported 41 minor accidents and no major accidents. Eversource Response to Interrogatory RSR-54, Attachment 1. Of the 41 minor accidents reported, 39 were for wires down on an occupied vehicle or tractor trailer, one was for wires down on a roof, and one was for a car colliding with and damaging a utility pole. Id.

Eversource recorded four instances of employee or contractor injuries in the month of August: (1) a damage patroller who was hit by a rolling company vehicle on August 27, 2020; (2) an employee rolling an ankle while stepping out of a bucket truck; (3) an employee straining a thumb while straightening a bent conductor; and (4) a contractor sustaining a hand laceration from a broken insulator while cutting a pole. Evesrouce Responses to Interrogatories LCG-36RV01 and RSR-35, Attachment 2. These incidents were not included in the August 2020 monthly accident report. Eversource Response to Interrogatory RSR-54, Attachment 1.

Eversource recorded three instances of property damage to company equipment during the month of August 2020: (1) a vehicle damaged by a wind-blown substation gate; (2) falling tree branch that broke a company vehicle side mirror and window; and (3) a damaged company truck tailgate while a transformer was being loaded. Eversource Response to Interrogatory RSR-35, Attachment 2. These events were not included in the August 2020 monthly accident report. Eversource Response to Interrogatory RSR-54, Attachment 1.

Eversource received claims of property damage from 29 customers alleging property damage such as: damage to mailboxes (4 claims), damage to electric fence (3), environmental damage (5), sewer line damaged (1), property damaged by trucks (2), car damage by rotted pole (1), solar lights damaged (1), improper service line installation (5), improper transformer installation (1), bad transformer (3), improper repair (1), open neutral (1), and employee error (1). Eversource Response to Interrogatory RSR-35, Attachment 1. These events were not included in the August 2020 monthly accident report. Eversource Response to Interrogatory RSR-54, Attachment 1.

Eversource also had a power surge event in Somers, Connecticut that occurred in August 2020; yet, the company did not include the event in its monthly accident report. Eversource Response to Interrogatory RSR-54.

The Authority has reviewed the accidents as reported above and finds that many or all of them reasonably meet the definition of "minor accident" as codified in Conn. Agency Regs. § 16-16-2(b). In the case of property damage, the accidents included "damage to a utility's facility or customer equipment, which were or may have been connected with or due to a utility's operation or equipment, where the public was not exposed to primary voltage." Conn. Agency Reg. § 16-16-2. In the case of reports of personal injury, the incidents recorded by Eversource involved "accidents to employees ... which were or may have been connected with or due to a utility's operation, property or facility ... resulting in ... personal injury, whether or not hospitalization is required." Conn. Agency Regs. § 16-16-2.

Thus, the Authority finds that Eversource failed to report minor accidents as required by Conn. Gen. Stat. § 16-16 and Conn. Agency Regulations § 16-16-3. Conn. Gen. Stat. § 16-16 authorizes the Authority to fine the company not more than $500 for each instance for failure to report minor accidents monthly. The Authority will consider implementing this fine in its Docket No. 20-08-03RE01 Notice of Violation.

Of further concern, the Authority learned of the death of a family pet belonging to an Eversource customer in Newtown. Four Towns PFT, p. 14. The family dog was electrocuted on August 8, 2020, when it came into contact with a downed power line on 21 Totem Trail, Newtown, CT. Id. According to First Selectman Marconi, the downed live wire was first reported to Eversource in the immediate aftermath of Tropical Storm Isaias on August 4, 2020, but Eversource neglected to timely respond and cut power to the wire. Id.; Tr. 12/14/20. p. 102. Eversource claimed that there were a sequence of events at this location, none of which called for a wire guard. Eversource Response to Interrogatory RSR-85. Eversource stated that the first wire down call was made on August 8, 2020. Id.

While any loss of life is tragic, the fact that it was a family pet and not a family's young child is a blessing. While the facts in the record are in dispute as to whether the downed power line was first reported to Eversource in the tropical storm's immediate aftermath, as testified to by First Selectman Marconi, or on August 8, 2020, as claimed by Eversource, the Authority finds that the outcome was the same: Eversource permitted an unsafe condition to persist for days following an emergency event.

3. UI Performance

UI stated that there were no incidents during its Tropical Storm Isaias response or restoration activities that met the definition of a major or minor accident as defined by Conn. Agency Regs. § 16-16-2 and thus did not file reports in accordance with Conn. Agency Regs. § 16-16-3. UI Response to Interrogatory RSR-54. Nonetheless, when asked by the Authority, UI separately provided alleged property damage claims from eight (8) customers. UI Response to Interrogatory RSR-35. These claims included UI facility-related damage to customer driveway (2), customer garage (1), commercial building systems (1), damaged appliances (3), and service panel breaker (1). Id.

The Authority has reviewed these claims and finds that many or all of them meet the definition of minor accidents under Conn. Agency Regs. § 16-16-2, and, therefore, should have been reported in the August 2020 monthly report. Specifically, the claims

involved "damage to a utility's facility or customer equipment, which were or may have been connected with or due to a utility's operation or equipment, where the public was not exposed to primary voltage." Conn. Agency Regs. § 16-16-2(b)(1).

Consequently, the Authority finds that UI failed to report minor accidents as required by Conn. Gen. Stat. § 16-16 and Conn. Agency Regulations § 16-16-3. Conn. Gen. Stat. § 16-16 authorizes the Authority to fine the company not more than $500 for each instance for failure to report minor accidents monthly. The Authority will consider implementing this fine in its Docket No. 20-08-03RE01 Notice of Violation.

I. MANAGEMENT AUDIT

In light of the storm response and management deficiencies identified during this investigation and outlined herein, the Authority will require comprehensive management audits to be performed on Eversource and UI. Under Conn. Gen. Stat. § 16-8(b)(2), the Authority may perform a management audit of a public service company "where the [A]uthority determines that an audit is necessary or desirable." In this Decision, the Authority has detailed a broad spectrum of noncompliance with established performance standards, unreasonable and/or imprudent actions, and inadequate utility management related to the EDCs' handling of the Tropical Storm Isaias emergency event. These findings necessitate management audits of the respective EDCs.

As such, the Authority will "require that the audit be performed under the supervision of designated members of the [A]uthority's staff by an independent management consulting firm . . ." Conn. Gen. Stat. § 16-8(b)(2)(C). The consulting firm will be of nationally recognized stature and will be selected by the Authority, in consultation with the respective EDCs. Id.

Although the costs related to management audits have been treated at times as eligible for cost recovery by public service companies under Conn. Gen. Stat. § 16-8(b)(6), these management audits are the direct result of the EDCs' unreasonable and imprudent management of the storm response. Consequently, the Authority may disallow some or all of the costs as being causally connected to the EDCs' unreasonable and imprudent storm response management.

The scope of a management audit is contemplated in Conn. Gen. Stat. § 16-8(b)(3) and in Conn. Agency Regs. §§ 16-8-1 to 16-8-4. However, due to the significant deficiencies and noncompliance identified in this investigation, the Authority determines that it is necessary for the audit to also focus on the following:

1) a comparison of current operations to previously undertaken management audits and to the Authority's investigation of the 2011 storms;
2) a more granular examination of ERP performance standards, including communications standards, Make Safe protocols, and the liaison program;
3) the degree of support from the executive team/parent company, balanced with the degree of independent decision-making allotted to the state-jurisdictional EDC; and

4) organizational changes necessary to address subpar emergency response performance deficiencies identified herein or through the course of the management audit.

Given subsidiary relationships and shared executive teams, the management audits shall also include each EDC's affiliate gas companies - Yankee Gas (Eversource), and Connecticut Natural Gas and The Southern Connecticut Gas Companies (UI) – as well as Eversource's affiliate water company – Aquarion.

By June 30, 2021, the Authority will issue requests for proposal (RFPs) for Eversource and UI management audits, including their affiliate gas and water companies, with detailed scopes consistent with the directive above. The EDCs and other interested stakeholders will have 30 days to respond with comments and requested revisions to the outlined scope of work. Within 30 days of the revision deadline, the Authority will release the RFPs and begin the process of selecting consultants for the management audits.

V. DISALLOWANCE OF STORM COST RECOVERY

In accordance with the Revised Notice of Proceeding, the Authority conducted a thorough investigation of the "prudency of the EDCs' actions taken before, during, and after Tropical Storm Isaias," the findings of which are detailed in Section IV. However, the EDCs are not presently seeking, nor has the Authority considered, the allowance or disallowance of expenses related to Tropical Storm Isaias. If the EDCs elect to pursue cost recovery of expenses related to Tropical Storm Isaias, such petition would be evaluated in the course of a future contested rate proceeding, at which time, the Authority will evaluate the final, audited cost data to verify that the storm costs are accurate, quantifiable, supported by documentation, and properly accounted. The Authority will further confirm that costs have not been included in the rates and charges currently charged to customers. Moreover, the Authority will consider whether the storm costs for which recovery is sought were prudently incurred. In short, the Authority does not preclude itself from finding specific actions, and the associated costs, relating to either EDC's preparation for and response to Tropical Storm Isaias were imprudent in the context of a future rate proceeding, in addition to the findings articulated herein.

In this Decision, the Authority has made specific findings that Eversource was not prudent in executing its Make Safe responsibilities, communicating critical information to its customers, or meeting its obligation to secure adequate resources in a timely manner to protect the public safety and to provide for the overall public interest in response to Tropical Storm Isaias. Consequently, any costs or additional costs arising from or related to such imprudent actions will be subject to disallowance in any future cost recovery proceeding.

VI. ROE REDUCTION

Each EDC's performance in response to Tropical Storm Isaias was deficient, inadequate, and imprudent to varying degrees. As a result, the Authority finds that a reduction in the EDCs' ROE is necessary and appropriate to adequately incentivize improved storm response performance moving forward. As discussed *supra* in Section II. D., an ROE reduction for storm performance may come from a finding of imprudence, a failure to comply with established performance standards, or a determination of poor or deficient management based on factors in Conn. Gen. Stat. §16-19e(a). Here, each of these three elements is present and, individually and in aggregate, are sufficient to justify an ROE reduction.

Eversource's and UI's management of storm-related actions and responsibilities must be considered within the context and the history of past storm reviews and orders of the Authority. The EDCs' customers have a right to expect that performance failures exhibited in response to Tropical Storm Isaias will not be repeated going forward; indeed customers have a statutory right to expect that the EDC will perform future public service duties in a prudent, efficient, safe, and adequate manner with care for public safety.

In accordance with Conn. Gen. Stat. §16-19e(a)(3) and (5), the Authority finds that the record evidence in this proceeding supports a determination that the respective storm performances of Eversource and UI were inadequate and deficient and, therefore, warrant a ratemaking ROE reduction to properly align the EDCs' financial incentives with performance. As a result, pursuant to its authority under Conn. Gen. Stat. §16-19e(a), the Authority will order a reduction in each company's ROE in order to incentivize the EDCs to improve their management of future storm responses.[46] The ROE approved for the EDCs in the next applicable ratemaking proceeding in which a final decision is issued, such as the pending Docket No. 17-12-03RE11, PURA Investigation into Distribution System Planning of the Electric Distribution Companies – New Rate Designs and Rates Review, will accordingly be reduced.

For UI, the Authority will impose a 15 basis point ROE reduction. The Authority has imposed a range of ROE reductions for deficient performance in the past. Most notably, the Authority ordered a 15 basis point reduction in Eversource's ROE for its deficient 2011 Storms performance. 2014 Eversource Rate Case Decision, p. 152. See, also, Decision, April 27, 2011, Docket No. 10-09-08, Application of United Water Connecticut, Inc. to Amend Rate Schedules, p. 83 (ordering an indefinite fifty (50) basis point ROE reduction for imprudent management of accounting, record keeping and billing methods as a "strong warning to improve its business management practices."). Considering this precedent, the Authority finds that an indefinite 15 basis point reduction is reasonable, consistent with prior ROE reductions, and sufficient to properly incentivize improved storm response performance by UI.

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[46] In the alternative, the Authority's specific findings that the EDCs failed to comply with the established performance standard or that the EDCs acted imprudently are a sufficient basis to impose an ROE reduction.

For Eversource, the Authority will impose a 90 basis point ROE reduction. This reduction must be considered in the context of previous storm response investigations. After the 2011 Storms, the Authority found CL&P's storm response deficient and, as a result, imposed a 15 basis point ROE reduction for a period of one year. 2014 Eversource Rate Case Decision, p. 152. Notably, the Authority found that CL&P's mismanagement of the storm response merited a ROE reduction exceeding 50 basis point due to the volume of customers impacted and the duration of the outages. Id., p. 154. However, the Authority imposed a lower reduction in ROE due to the mitigating circumstances of certain improvements made by CL&P immediately following the 2011 Storms. Id.

Importantly, the Authority cautioned Eversource that it would face further ROE reductions to incentivize and improve performance if it failed "to improve based on major storm preparedness and response and is found not to be in compliance with the outage restoration standards" established by the Performance Standards Decision. Id. The Authority also stated that if the company improved its future storm response performance, its ROE would not be subject to such reductions in the future. Id., p. 153.

Unfortunately, Eversource's storm performance during Tropical Storm Isaias demonstrates that the one-year 15 basis point ROE reduction imposed by the Authority did not sufficiently incentivize Eversource to implement long-term improvements to its performance. Further, the Authority finds that it cannot reasonably rely on claims by Eversource in this proceeding that it has or will implement improvements to its emergency response as a basis for reducing the warranted ROE reduction given that many of the same deficiencies identified herein were present in the 2011 Storms Decision.

Consequently, the Authority must provide Eversource with a more substantial incentive in order to ensure improved emergency management, protect the foreseeable public interest, and reduce the risk that the performance failures exhibited in response to Tropical Storm Isaias will not be repeated in future storm events. In light of the foregoing, the Authority finds that an indefinite 90 basis point is reasonable, consistent with prior ROE reductions, and sufficient to properly incentivize improved storm response performance by Eversource.

VII. RELATED (ONGOING) AUTHORITY INVESTIGATIONS

The Authority notes that there were a number of other pressing issues identified during the course of the investigation, all looking to mitigate the potential cascading effects of long-term power outages on other aspects of our daily lives, from access to water (for the sizeable number of residents whom rely on well water across the State) to internet access. See, e.g., Iorfino Letter, August 14, 2020; Western Connecticut Council of Governments Letter, September 28, 2020. Other comments received inquired about the cost of continuously rebuilding the electric grid after the increasing number of catastrophic storms (a trend that is projected to continue in the years to come), and whether ratepayer dollars are better invested in decentralizing the grid through technologies such as energy storage, coupled with potential strategic undergrounding solutions. Moving forward, these topics will receive the attention they are due through the Authority's Equitable Modern Grid proceedings.[47] One of these proceedings, which is taking up issues uncovered through this investigation, Docket No. 17-12-03RE08, is discussed below.

A. DOCKET NO. 17-12-03RE08 AND SECTION 12 OF THE TAKE BACK OUR GRID ACT

On June 18, 2020, as part of its Equitable Modern Grid initiative, the Authority initiated Docket No. 17-12-03RE08, PURA Investigation into Distribution System Planning of the Electric Distribution Companies – Resilience and Reliability Standards and Programs, to investigate ways to increase the effectiveness of emerging EDC reliability and resilience programs. In the Interim Decision dated October 2, 2019, in Docket No. 17-12-03, PURA Investigation into Distribution System Planning of the Electric Distribution Companies (Equitable Modern Grid Decision), the Authority recognized that increasing reliability and resilience is a shared goal among the EDCs, ratepayers, public policy makers, and the Authority. Equitable Modern Grid Decision, p. 20. The Authority, however, identified that there was a lack of established standards by which to both (1) measure the (cost-)effectiveness of the programs underway, and (2) provide clear guidance to the EDCs on future reliability and resilience planning. Id.

Following Tropical Storm Isaias, Public Act 20-5, An Act Concerning Emergency Response by Electric Distribution Companies, the Regulation of Other Public Utilities and Nexus Provisions for Certain Disaster-Related or Emergency-Related Work Performed in the State (Take Back Our Grid Act) was passed and signed into law. Section 12(b) of the Take Back Our Grid Act required each EDC to submit to The Energy and Technology Committee of the Connecticut General Assembly (Committee) and to the Authority a study including the cost-benefit analysis on the number of line workers (both internal and external) that have been used in past storms. The studies were to examine key aspects of storm preparedness and response, as has been discussed in detail in this decision, including, but not limited to, communications and coordination with state and local officials, planning for vulnerable customers, damage assessment, and number and quality of equipment.

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[47] See, e.g., Docket No. 17-12-03RE03, PURA Investigation into Distribution System Planning of the Electric Distribution Companies – Electric Storage, in which the Authority is considering program designs that would prioritize critical customers and circuits.

Subsections 12(d) and 12(e) of the Take Back Our Grid Act further authorize the Authority to establish standards for acceptable performance for the EDCs regarding: (1) minimum staffing levels across all facets of emergency response, and (2) any other area to ensure proper emergency response and to minimize impacts of future events.

On December 28, 2020, the Authority incorporated the requirements of the Take Back Our Grid Act into Docket No. 17-12-03RE08 to conduct the required review. See, Notice dated December 28, 2020, in Docket No. 17-12-03RE08. Subsequently, the EDCs filed the studies required by Section 12(b) as correspondence on January 4, 2021 in Docket No. 17-12-03RE08.

As discussed *supra*, the Authority finds that both Eversource and UI have failed to meet various, existing acceptable performance standards. Under Docket No. 17-12-03RE08, the Authority will take the opportunity to extend the findings and orders in this Decision to improve existing standards and adopt clear and reasonable standards that will ensure efficient and effective resilience programs and adequate emergency response staffing levels for future storms.

B. SECTIONS 10 AND 11 OF THE TAKE BACK OUR GRID ACT

On December 29, 2020, the Authority opened Docket No. 20-12-46, PURA Implementation of Residential Customer Credit and Reimbursements by Electric Distribution Companies for Storm-Related Outages, pursuant to Sections 10 and 11 of the Take Back our Grid Act. Docket No. 20-12-46 serves as the administrative record for PURA's investigation into and implementation of the EDCs' process for distributing residential customer credits and reimbursement of medical and food spoilage due to storm-related outages, pursuant to Sections 10 and 11. Section 10 of the Take Back Our Grid Act requires that starting July 1, 2021 each EDC provide affected residential customers a credit of $25 per day for a distribution system service outage that occurs for more than 96 hours after the occurrence of an emergency. Section 11 requires each EDC to reimburse affected residential customers $250 for any medication and food that expires or spoils due to a distribution system service outage that lasts more than 96 hours after the occurrence of an emergency.

Sections 10 and 11 both require the Authority to consider how the credits and reimbursements will be implemented by the EDCs. As specified in the Take Back Our Grid Act, the Authority is also to consider any waiver provisions. The Authority will issue a Decision in Docket No. 20-12-46 on or before July 1, 2021. The Decision will establish circumstances, standards, and methodologies for each EDC to implement the reimbursement of medical and food spoilage and residential customer credits, in addition to addressing the implementation of any waiver provisions.

VIII. CONCLUSION AND ORDERS

A. CONCLUSION

Specifically, Eversource did not satisfy the performance standards for managing its municipal liaison program, executing its Make Safe responsibilities, communicating critical information to its customers, or meeting its obligation to secure adequate resources in a timely manner to protect the public safety and to provide for the overall public interest. Accordingly, the Authority will consider fines and penalties pursuant to Conn. Gen. Stat. 16-32i in Docket No. 20-08-03RE01, PURA Consideration of Civil Penalty and Enforcement Action Against the Electric Distribution Companies After Storm Isaias Investigation. Further, the Authority finds that Eversource's actions, and omissions, leading up to Tropical Storm Isaias in these areas were imprudent. Conversely, the Authority finds that UI has generally met standards of acceptable performance in its preparation and response to Tropical Storm Isaias, subject to the exceptions noted herein.

Herein the Authority issues further directives requiring revisions to the ERPs of both EDCs regarding external crew needs and medical hardship customers. The Authority directs the EDCs to perform more outreach to municipalities to develop a set of information that would be most relevant and useful for municipalities in the first 48 hours after onset of an emergency event.

Additionally, the Authority finds that the record evidence in this proceeding supports a determination that the respective storm performances of Eversource and UI were inadequate and deficient and, therefore, warrant a ratemaking ROE reduction to properly align the EDCs' financial incentives with performance in accordance with Conn. Gen. Stat. §16-19e(a). As a result, the Authority finds that an indefinite 15 basis point reduction for UI and 90 basis point reduction for Eversource is reasonable, consistent with prior ROE reductions, and sufficient to properly incentivize improved storm response performance moving forward.

B. ORDERS

For the following Orders, the Company shall file an electronic version through the Authority's website at www.ct.gov/pura. Submissions filed in compliance with the Authority's Orders must be identified by all three of the following: Docket Number, Title, and Order Number. Compliance with orders shall commence and continue as indicated in each specific Order or until the Company requests and the Authority approves that the Company's compliance is no longer required after a certain date.

1. No later than June 30, 2021, Eversource and UI shall separately submit for the Authority's review, modification, and approval updated ERPs incorporating all of the changes discussed herein. In this filing, the EDCs shall provide two sets of ERPs: a version with redline edits and a clean version. Such changes shall include the modifications to the ERP Event Level Classification Matrix outlined in Section IV.D.8. The updated matrix shall include the number of total, internal, and external resources to be available at the onset of the storm, as well as the peak number of crews expected during the storm restoration process for each event level for the following categories of resources by number of crews and full time equivalent staff:

    a. Line Crews;
    b. Service Crews;
    c. Damage Assessors;
    d. Tree/Line Clearance/ Vegetation Management Crews;
    e. Liaisons; and
    f. Large customer account representatives (See, Section IV.G.1.).

2. The EDCs shall also develop a process for identifying and tracking life support customers, which are customers that require electrical service for life-maintaining conditions. The EDCs shall incorporate into their respective ERPs filed for the Authority's review, modification, and approval on or before June 30, 2021, a formal process to contact life support customers before, during, and after storm events. Specifically, the formal process must include steps to: contact all life support customers more than 24 hours before the onset of a major storm; track the status of electric service to life support customers; regularly update each municipality served by the EDC of the life support customers without power in their town; and provide daily communications to life support customers without power during the storm restoration process..

3. No later than June 30, 2021, Eversource and UI shall separately perform and submit to the Authority a study to determine the number of damage assessors needed to assist in the identification of Make Safe locations and restoration duties within the first 48 hours of storm onset for each of the event levels in its Event Level Matrix. Based on the findings of the study, UI and Eversource shall include in their respective updated ERPs the range of damage assessors likely needed in the event level classification, as directed in Order No. 1.

4. Until further notice, the Authority directs Eversource and UI to include in their storm preparedness resource acquisition activities the ability to acquire enough line resources and liaisons sufficient to dedicate one of each to any potentially affected municipality in its territory who requests such. This requirement shall apply to any Event Level 4 or higher.

    a. In the case of Make Safe liaisons, Eversource and UI shall provide a Make Safe liaison that is in addition to the town liaison and will be dedicated solely during response to coordinate blocked roads with the towns until all Make Safe roads are cleared or until such a time as the EDC and town has conferred and determined that the town no longer needs a dedicated Make Safe liaison.

    b. In the case of line resources, Eversource and UI shall have on hand line resources in advance of an event sufficient to provide one lineworker crew for all towns that request one. UI shall continue to provide a dedicated line resource crew and Make Safe crew to each municipality that requests one according to its current policy. In the case of an Event Level 4 or higher, Eversource and UI shall make these resources available for municipalities no later than 12 hours after the storm has left the area. Additional line resources brought to bear for which a town no longer has need may, upon confirmation with the town, be allocated to restoration or to other duties. This requirement is not intended to prevent the EDCs from using all of its available crews to respond to higher priority needs to ensure public safety.

    c. Each EDC shall develop criteria such as, but not limited to, the number of damage locations as a percent of miles of main line primary in a town, or total miles of primary that would be applied to determine the deployment of available Make Safe liaisons and line crews to those towns that have the highest public safety and outage impact, in the event that, and only so long as, available resources are not sufficient to address all public safety priorities at the same time in all towns. This requirement is intended to allow the EDCs to use all available crews to respond to higher priority needs to ensure public safety. Such criteria shall be included in the emergency response plan and reviewed annually with each town.

5. No later than June 30, 2021, Eversource shall review and update its CG ERP to incorporate all recent changes to its outage reporting channels and systems.

6. No later than June 30, 2021, Eversource shall perform stress testing on its inbound digital and telephony communications channels up to a high-side Event Level 2, where there would be up to 70% customer outages at peak. The Company shall report the results of this study to the Authority no later than September 1, 2021.

7. No later than June 30, 2021, the EDCs are directed to individually collaborate with CIEC to develop and submit to the Authority for review, modification, and approval the following modifications to the EDCs' emergency response activities relating to major customer accounts, which shall be incorporated into each EDC's ERP upon approval:

    a. Solutions to better to support major accounts during emergency events;
    b. Formal after action reporting process for major accounts; and
    c. Formal emergency preparedness and response communications plan with account representatives.

8. No later than June 30, 2021, the EDCs shall revise and file for the Authority's review, modification, and approval timesheets or other documentation used to track work performed by external or contractor line crews and damage assessors during future storms. Such revised timesheet or other documentation shall include the following minimum set of information per shift:

    a. Number or amount of work performed;
    b. Description and location of work performed;
    c. Beginning and ending locations;
    d. Paid time spent traveling at start and end of shift;
    e. Paid time traveled for mobilization, demobilization and standby time; and
    f. Employee names; dates; and hours worked.

    The timesheets/documentation templates shall be included as an attachment to each EDC's public version of its ERP.

9. No later than June 30, 2021, the EDCs shall separately submit in a report to the Authority for its review and approval findings from the EDCs' outreach to municipalities to understand what information and best form(s) of communicating that information is most useful and actionable to the towns during the first 48 hours following an Event Level 3 or greater event. The report shall also include a proposed template for use during future storms to communicate this information to towns for the Authority's review, modification, and approval. The Authority will subsequently release such report for public comment. Once approved by the Authority, the EDCs shall communicate any required changes to the current communications protocols to all municipal leaders in their service territory and shall incorporate such protocols into the EDCs' respective ERPs.

10. No later than June 30, 2021, the EDCs shall separately work with municipalities in their service territories to identify ways that reporting blocked roads could be improved using the current manual reporting system. The EDCs shall summarize the input received from the municipalities in a report to the Authority. The report shall also include proposed improvements to the current reporting system for the Authority's review, modification, and approval. The EDCs are directed to submit for the Authority's review and approval the report and the proposed improvements. Once approved, the EDCs shall communicate any required changes to the current reporting system to all municipal leaders in their service territory and shall incorporate such changes into the EDCs' respective ERPs.

11. No later than June 30, 2021, the EDCs shall submit to the Authority a revised standard template for its 60-Day After Action Reports submitted to the Authority pursuant to Section 3.7 of Appendix A of the Performance Standards Decision that includes a section to consider corrective actions and lessons learned regarding performance efficiencies or cost saving measures.

12. Upon approval of the compliance materials filed in response to Order No. 9, and upon approval of the compliance materials filed in response to Order No. 10, the EDCs shall re-file their ERPs with any changes authorized by the Authority. For the sake of clarity, each EDC shall refile its ERP twice, unless the Authority's approval of the compliance filings in questions occur within one week of each other.

13. No later than January 1, 2022, Eversource shall file a motion for Authority review, modification, and approval of its CG ERP, updated as ordered herein.

14. No later than January 1, 2022, UI shall develop and file with the Authority for review, modification, and approval a communications plan equivalent to Eversource's CG ERP.

15. Upon filing the completed, audited costs associated with the EDC's response to Tropical Storm Isaias, the Authority directs each EDC to provide supporting documentation and details regarding external line crews and damage assessors mirroring, to the extent possible, the type and level of detail discussed in Section IV.G.3.

16. No later than January 1, 2022, the EDCs shall submit to the Authority findings of meetings with the State of Connecticut Insurance Department. The findings shall include:
    a. A list and description of potential insurance policy options;
    b. An analysis of all potential and applicable insurance policies;
    c. Whether the EDCs are considering adopting storm insurance policies;
    d. If no policies are under consideration for adoption, a description of the reasons, with supporting evidence, why holding a storm insurance policy is impractical; and
    e. Summary minutes of all meetings held with the Department of Insurance in execution of this order.

DOCKET NO. 20-08-03 INVESTIGATION INTO ELECTRIC DISTRIBUTION COMPANIES' PREPARATION FOR AND RESPONSE TO TROPICAL STORM ISAIAS

This Decision is adopted by the following Commissioners:

Marissa P. Gillett

John W. Betkoski, III

Michael A. Caron

CERTIFICATE OF SERVICE

The foregoing is a true and correct copy of the Decision issued by the Public Utilities Regulatory Authority, State of Connecticut, and was forwarded by Certified Mail to all parties of record in this proceeding on the date indicated.

Jeffrey R. Gaudiosi, Esq.
Executive Secretary
Public Utilities Regulatory Authority

April 28, 2021
Date