Eversource and You

Partners in Emergency Response

Spring 2019

Today's Agenda

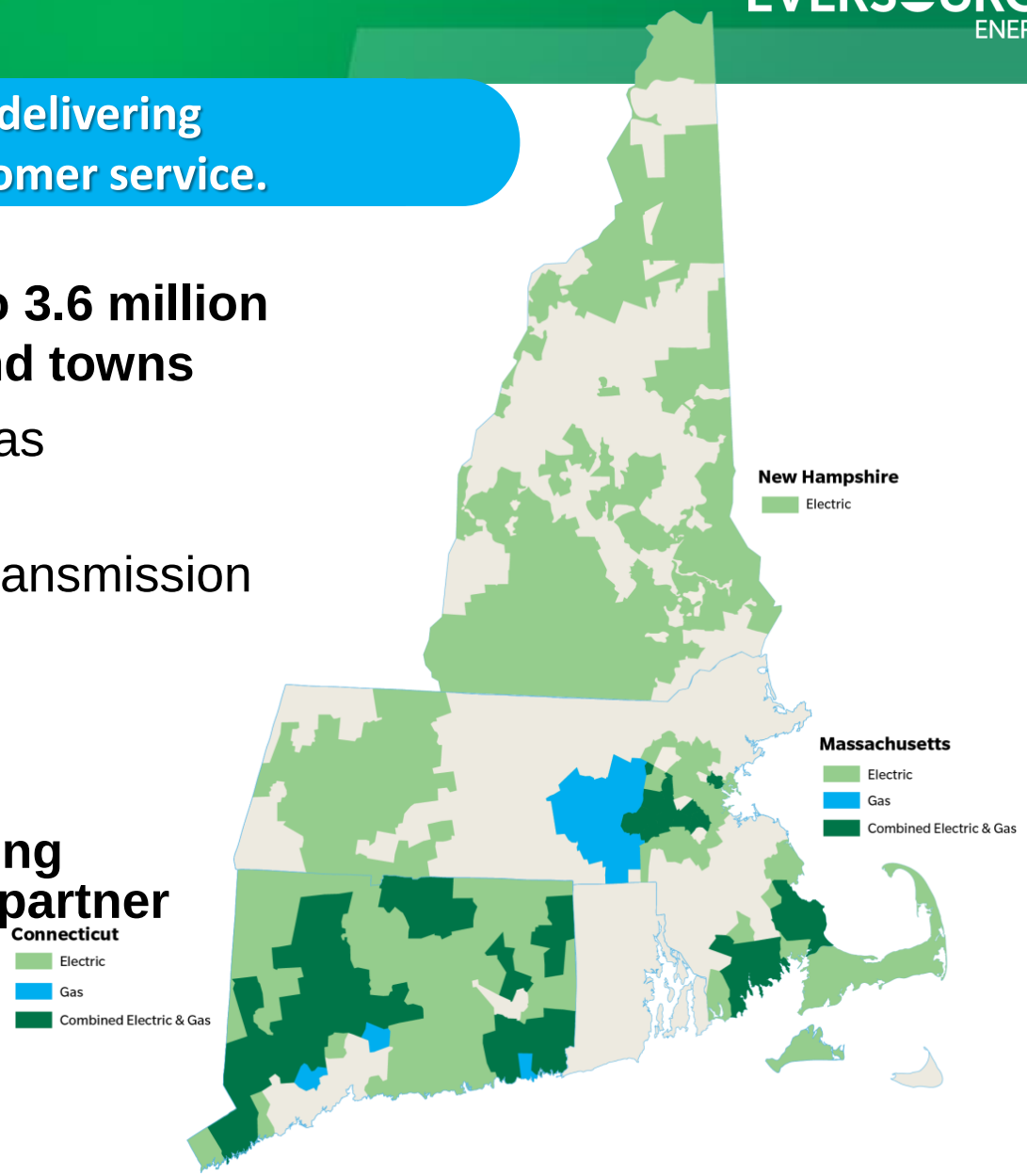
- Welcome and Introductions
- Company Profile
- Community Liaison Process
- Community Priorities
- Critical Facilities / Critical Customers
- Community Portal / Enhanced Outage Map
- Emergency Response & Public Safety Priorities
- Electrical Hazard Safety Awareness
- Vegetation Management
- Wrap-Up, Q&A

Community Relations

Company Profile

We are one company focused on delivering reliable energy and superior customer service.

- **Safely providing energy to 3.6 million customers in 525 cities and towns**
  - 6,650 miles of natural gas distribution piping
  - 4,500 miles of electric transmission line
  - 72,000 miles of electric distribution line
- **Committed to being a strong community and business partner**



Community Liaison Team - Blue Sky Days

EVERSOURCE ENERGY

- Attend annual training / review systems & liaison tools
- Gain familiarity with community roadways / facilities
- Attend annual LEPC meetings
- Meet Annually with Public Officials
  - Review / Update Pre-designated Portal Contacts
  - Review / Update Municipal Contact Information
  - Review Critical Facility / Community Priority Definition
  - Review Critical Facilities / Infrastructure
  - Review Public Safety #’s
  - Review Life Support Customer Processes

Community Liaison Team - ERP

- Liaison Officers
  - Located in the Incident Command Center
- Community Liaison Unit Leaders
  - Teamed with EOC Managers and work together at each Emergency Operations Center (EOC)
  - Oversees multiple Community Liaisons within the EOC
  - Prioritize all Community Priorities (CP) with assistance of EOC Manager
- Community Liaisons
  - Located in the EOC or Area Work Center
  - Single point of contact for elected and appointed municipal officials
  - Coordinate two-way communication between EVERSOURCE and their assigned municipalities

Pre-Event Planning

- Ass't Liaison Officer will contact Public Officials:
  - Notify of ERP Declaration
  - Confirm Community Liaison contact information
  - Notify pre-designated portal contacts of portal activation

- Eversource Call Center
  - Contact Life Support Customers via automated phone call and provide recorded message with notification of predicted incident

Communications During Event

Community Liaisons will contact Pre-designated Public Officials:

- Advise that EOC is open and verify contact information
- Provide outage information, ETA's and ETR's
- Review and prioritize the Community Priorities and assist with escalation
- Update municipalities when Community Priorities appear on Portal and completed
- Request well-being check for Life Support Customer
- Notify of shift change
- Follow-up call/email to inform officials of return to normal operations

Community Priorities (CP)

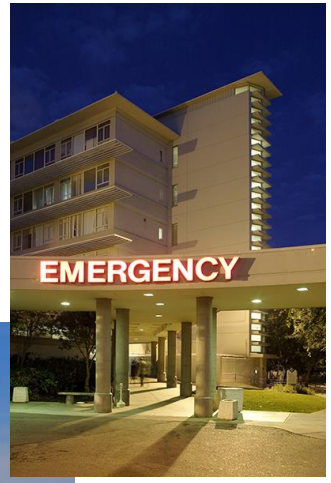
- The predesignated officials in each community will have the opportunity to provide your Liaison with Community Priority requests.
- Each request is reviewed against the definition of Critical Facility/Community Priority and prioritized by the Eversource EOC Manager within all regional Community Priority requests.

What is a Community Priority?

"A Community Priority can include a Critical Facility, a ***Major*** municipal roadway that utility equipment is blocking and restricting travel, or priorities identified by the local community emergency management official or designee responsible for coordinating with the utility and mutually agreed upon with the utility company's Liaison. Community Priorities are used to identify critical outages that impact continuity of operations within the community."

What is a Critical Facility?

"A building or structure where the loss *of electrical service would result in the disruption of a critical public safety or life sustaining function*."



- Acute Care Hospitals
- 911 Dispatch Centers
- Police and Fire Stations
- Emergency Operations Centers
- Water Pumping and sewer treatment stations.
- Facility being used as an Emergency Shelter

Life Support Customer (LSC)

LSCs are defined as residential customers who have provided documentation certifying a medical condition that necessitates the use of electrically dependent, durable medical equipment.

We provide LSCs with pre-incident notifications, power-outage calls, and calls following restoration

Under Massachusetts General Law we are required to:

- Contact the LSC to 1) notify them we are aware of their outage, and 2) followup to confirm that their service has been restored.
- If unable to reach LSC by phone, notify public safety officials when an LSC 1) experiences an outage and 2) when their service has been restored.

LSC Application / Certification Process

A letter from a physician, on their letterhead certifying:

- That the electrically-dependent, durable medical equipment is being used for life support purposes
- The type of equipment being used (e.g. a ventilator or oxygen concentrator)
- Patient's name, address, contact number, alternative contact number

The letter must be signed by the physician and mailed to:

Eversource

247 Station Drive, SW200

Westwood, MA 02090-9230

…And this letter must be updated annually.

Community ERP Portal - Objective

Provide towns officials in the Eversource service territory with the ability to obtain some key information about restoration efforts in their town electronically via the web.

- Eversource & Municipal Contact Information
- Life Support Customers
- Critical Facilities
- Community Priorities
- Public Safety (FPS Calls/Wires Down)
- Link to Eversource Outage Map

Community ERP Portal - Information

- Activated during ERP Levels 1-3.
- Two pre-designated public officials from each community have access after signing a license agreement.
- Outage Information Reports updated every 5 minutes.
- Map is updated every 15 minutes.
- Municipal officials must contact Eversource to have a call logged. Priorities cannot be submitted electronically.
- During “Blue Sky Conditions”, there will be a generic message when the user logs in stating that Eversource is currently working under normal operations.
- Gmail, AOL and Yahoo email addresses will not be accepted.

Community Portal – Community Leader View

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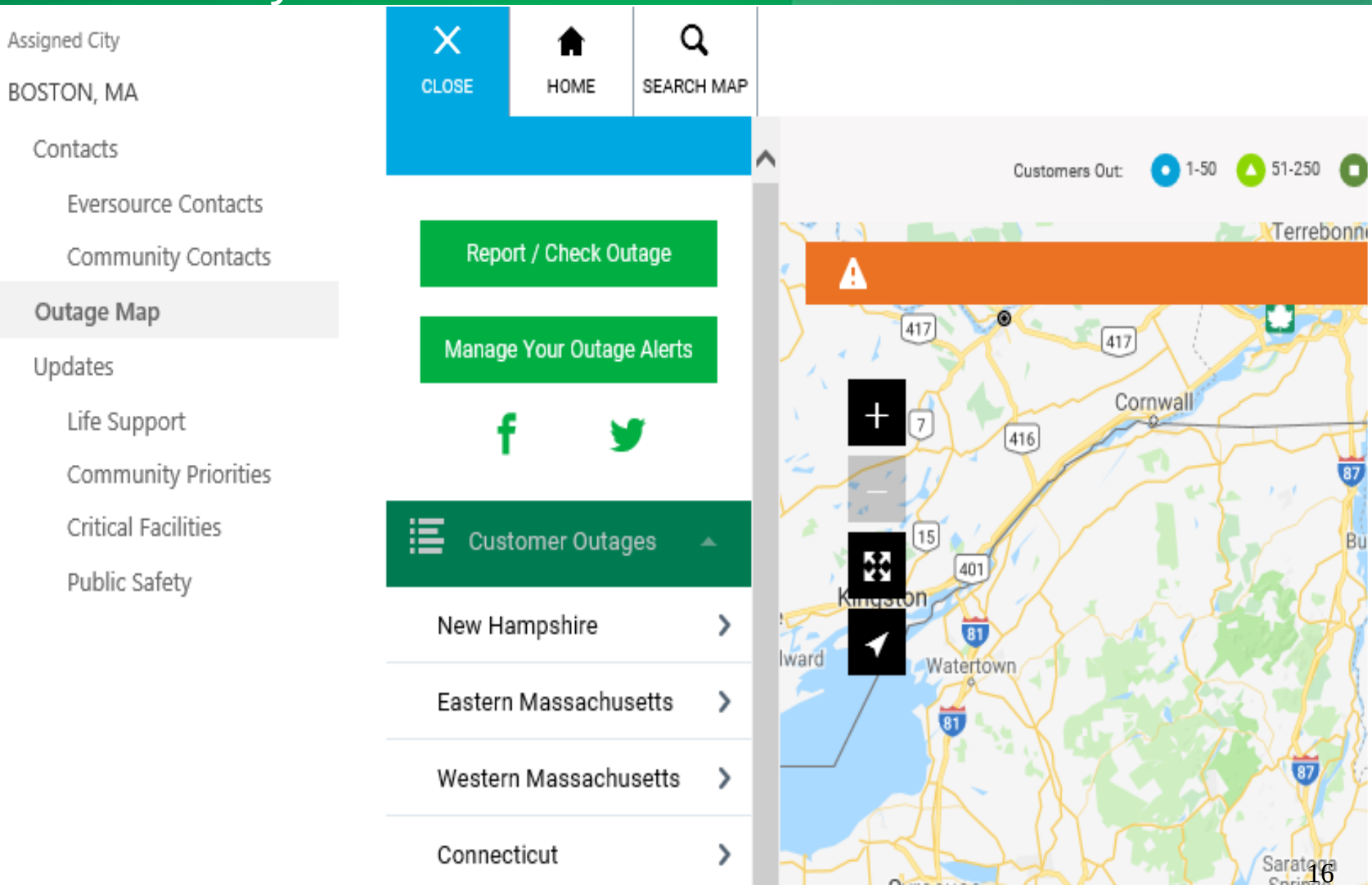
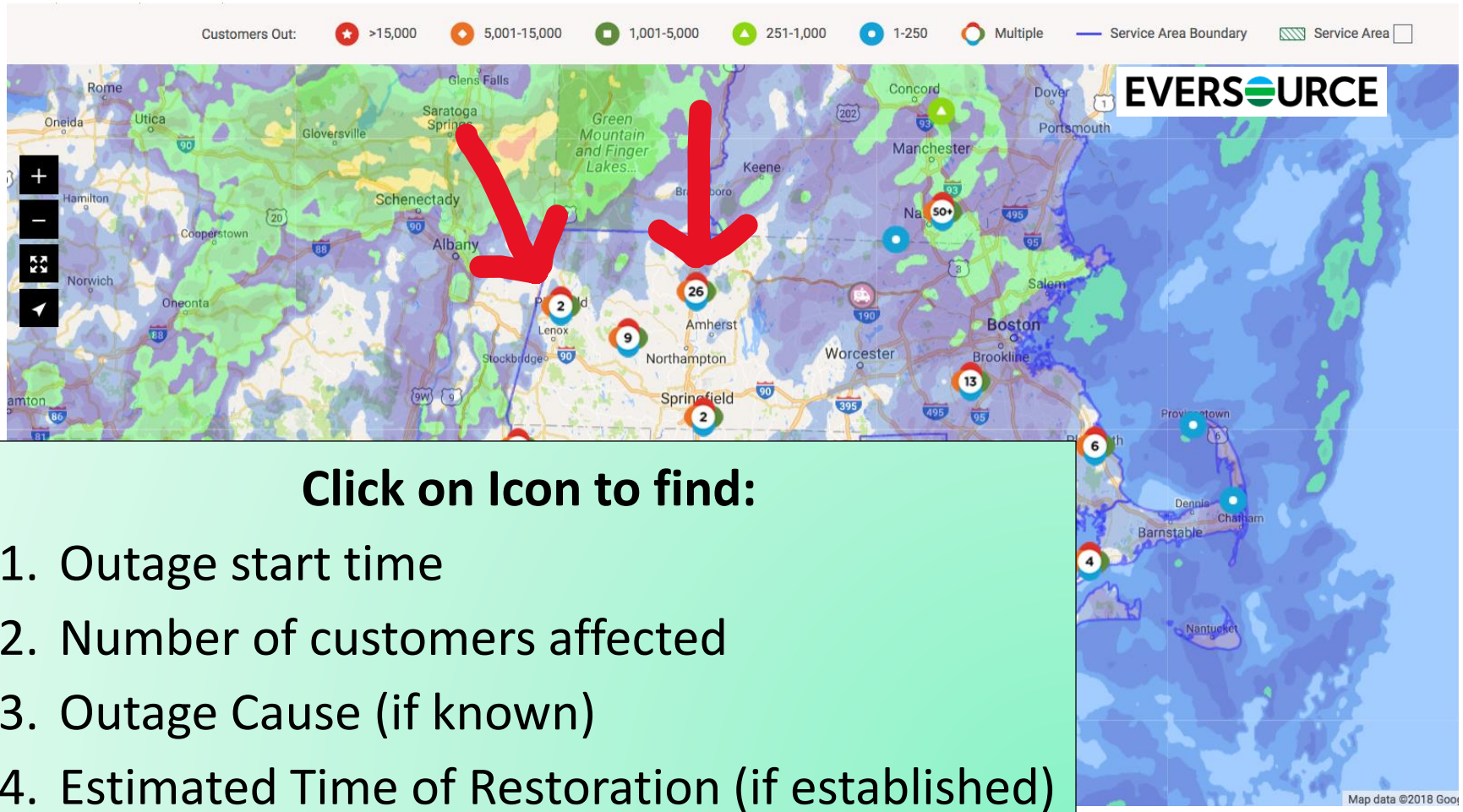


Enhanced Outage Map

Our enhanced outage map provides detailed outage information, including the points of data our customers have told us they value most. This also reflects the details customers are receiving in our popular Social Media Outage Alerts.

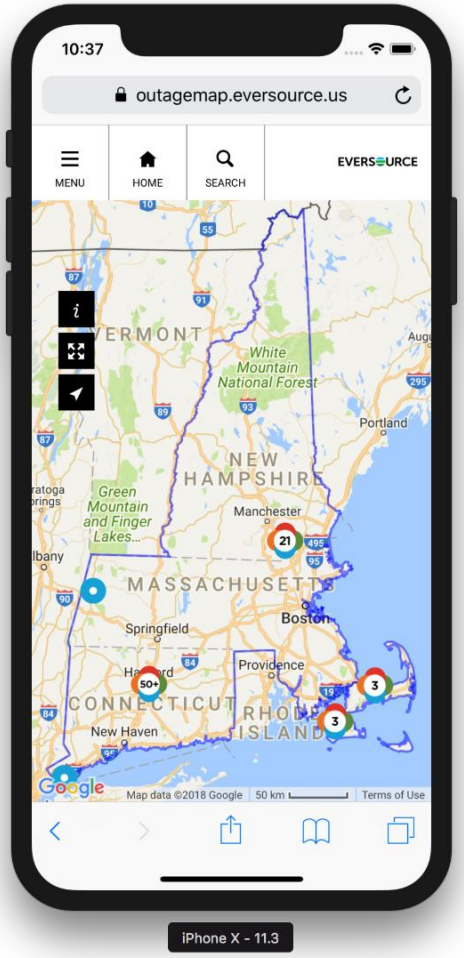


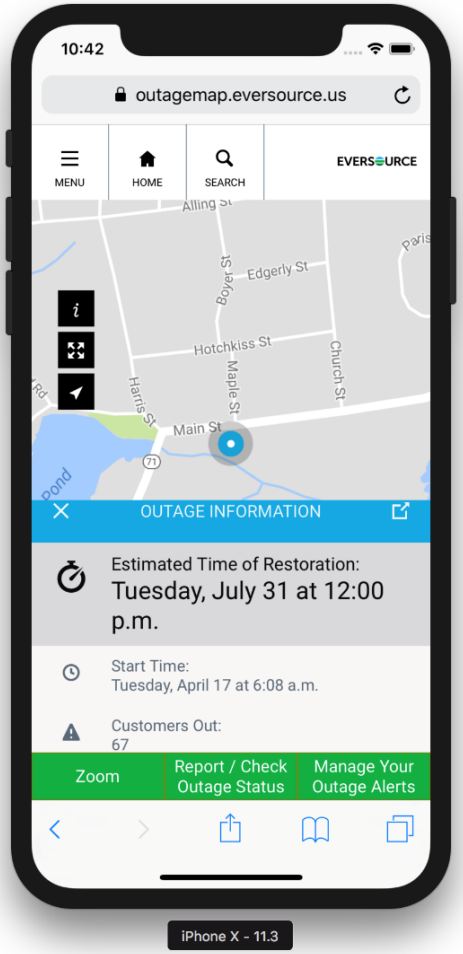
Click on Icon to find:

1. Outage start time
2. Number of customers affected
3. Outage Cause (if known)
4. Estimated Time of Restoration (if established)

Mobile View

The mobile view provides on the go details & the same functionality as the desktop. It is also the primary channel during a storm event with up to 80% of customer views





Emergency Restoration Overview

Dan Piche
Manager, Emergency Preparedness

Electric Services
Emergency Response Plan (ERP) Levels

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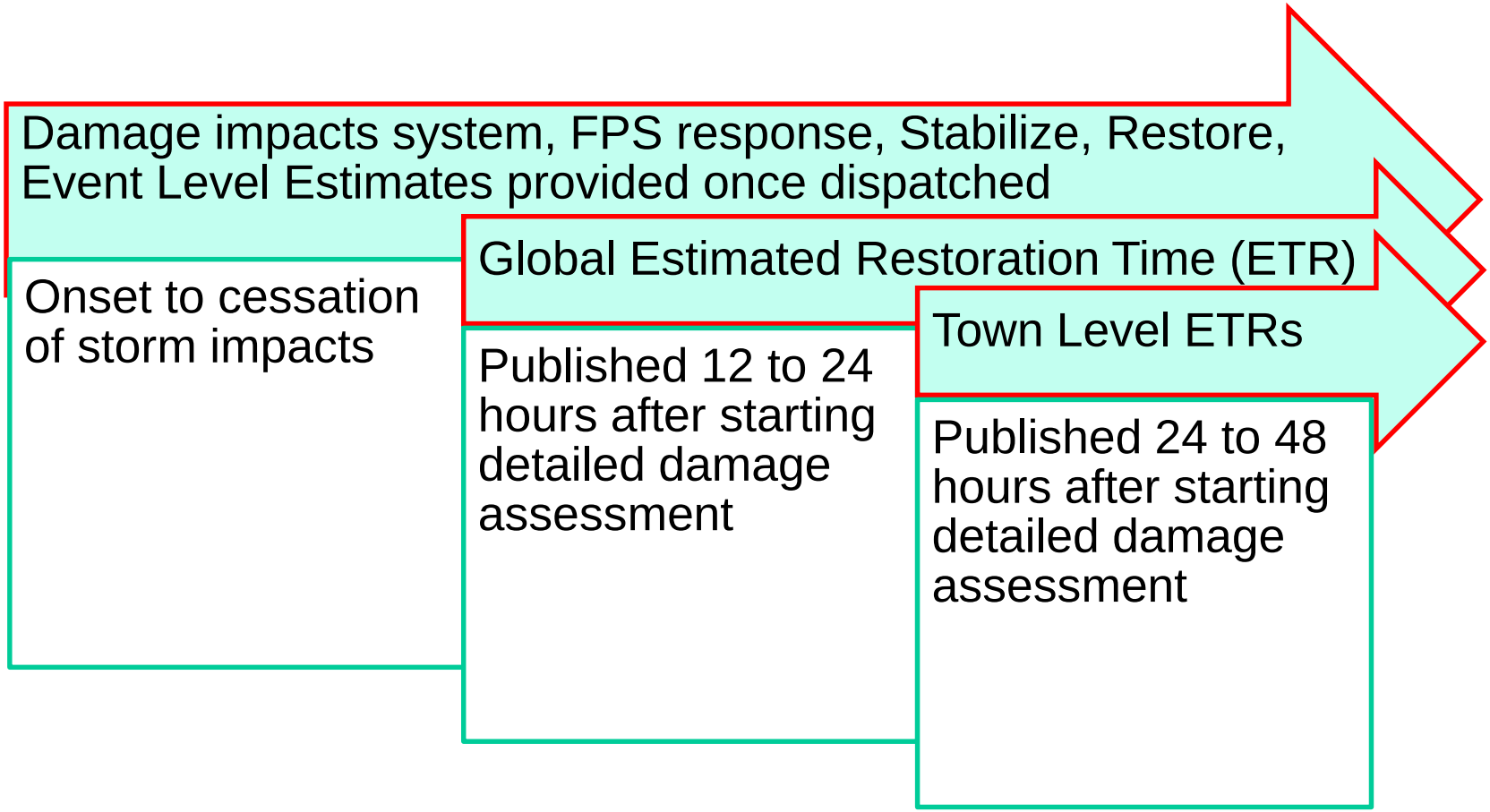
Level	Event Characteristics	Customers Affected	Predicted Duration
1*	**Catastrophic Event** Internal workforce supplemented with external crews	Greater than 350,000	Up to 7 days or more
2*	**Serious Regional Event** Internal workforce may be supplemented with external crews	140,000 - 350,000	96 - 120 hours
3*	**Moderate Regional Event** Internal workforce may be supplemented with external crews	70,000 - 140,000	48 - 72 hours
4	**Upgraded Normal Operations** Internal workforce - local crews and regional crews	14,000 - 70,000	24 - 48 hours
5	**Normal Operations**	fewer than 14,000	12 - 24 hours

** Full activation of ERP Incident Command Structure*

Emergency Incident Response Time Line



Global & Town Level Estimated Restoration Time (ETR) when predicted significantly restored (1% of customers left to restore in each town)

Restoration Philosophy

"To address public safety concerns while restoring the largest number of customers in the shortest amount of time."

- System Equipment involved in a life-threatening situation (FPS1)
- Restoration of transmission system lines and substations
- Restoration of Critical Facilities
- Restoration of the largest number of customers per repair
- System equipment blocking primary roadways and hampering public safety response

Public Safety Priority Calls

Fire/ Public Safety 1 (FPS1): "Emergency Calls"

Imminent Danger event in which utility equipment is preventing emergency response personnel from performing rescue efforts and/or administering first aid to someone who may be injured or is in danger of being injured. Public safety personnel are standing by.

- **ETA: As soon as <u>nearest</u> trained resources can arrive**
  - Storm situations may necessitate longer lead time

Examples:

- *A person is trapped in a vehicle that has struck a pole and the pole or equipment is prohibiting emergency personnel from approaching the vehicle*
- *A person is (or could be) trapped in a burning building and the emergency personnel need the electrical service disconnected before they can enter the structure.*

Public Safety Priority Calls

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FPS2: "Hindering Emergency Operation"

A Non-Life Threatening event in which utility equipment is preventing emergency response personnel from responding to a situation which is not considered life threatening or imminent danger yet requires the attention of emergency personnel. Public safety personnel are enroute or standing by.

- **ETA: As soon as the next available person can arrive.**
  - Storm situations may necessitate longer lead time

Examples:

- *Wires and/or equipment are blocking a road and preventing emergency personnel from passing – ask caller if wires/equipment are blocking road*
- *Emergency personnel have requested the electrical service be disconnected before they can extinguish a structure fire or respond to a flood*
- *Tree/ pole/ manhole/ structure fire in progress*

Public Safety Priority Calls

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FPS3: "Non-Threatening Electrical Hazard"

Utility equipment has created the need for emergency response personnel to remain on the scene to protect the public from the hazard created by the utility's equipment. Public safety personnel are enroute or standing by.

- **ETA: Respond with a <u>capable</u> resource**
  - Storm situations may necessitate longer lead time

Examples:

- *Wire and/or equipment are down along a sidewalk or commonly traveled way but not impeding travel – ask caller if the situation is impeding travel*
- *A pole has been struck and its structural integrity is in question*

For FPS Calls - Accurate Prioritization is Critical

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Emergency Information to Provide When Calling Eversource

- Is Emergency Personnel on Site?
- Is rescue or first aid hindered by Eversource equipment?
- Is the road blocked?
- What is pole # or address of closest structure?

– Car vs Pole
  - Is anyone trapped in vehicle or injured?
  - Is pole down or broken? Pole number?
  - Is there a transformer on the pole?
  - Are wires involved? Is the road blocked?

– Wires Low, Down, Limb on Wire
  - Are wires pole to pole or pole to house? Cause?
  - Is the road blocked?
  - Is the tree or limb on the wires?
  - Can the wire be touched or snagged by a passing vehicle?

– What Priority Level are you reporting?

COMMUNITY TASK FORCE

A regionally-based resource focused on responding to high priority Fire / Public Safety 1 & 2 events and community priorities during emergencies.

- Deployed to hardest hit communities once storm has passed and initial assessments have been completed
- Coordinate with and assist municipal representatives
- Assist in opening roadways obstructed by utility assets
- Able to address each situation directly or to identify and request additional resources

Electrical Hazard Safety Awareness for First Responders

George Popovici

Senior Safety Engineer

Electrical Safety Awareness

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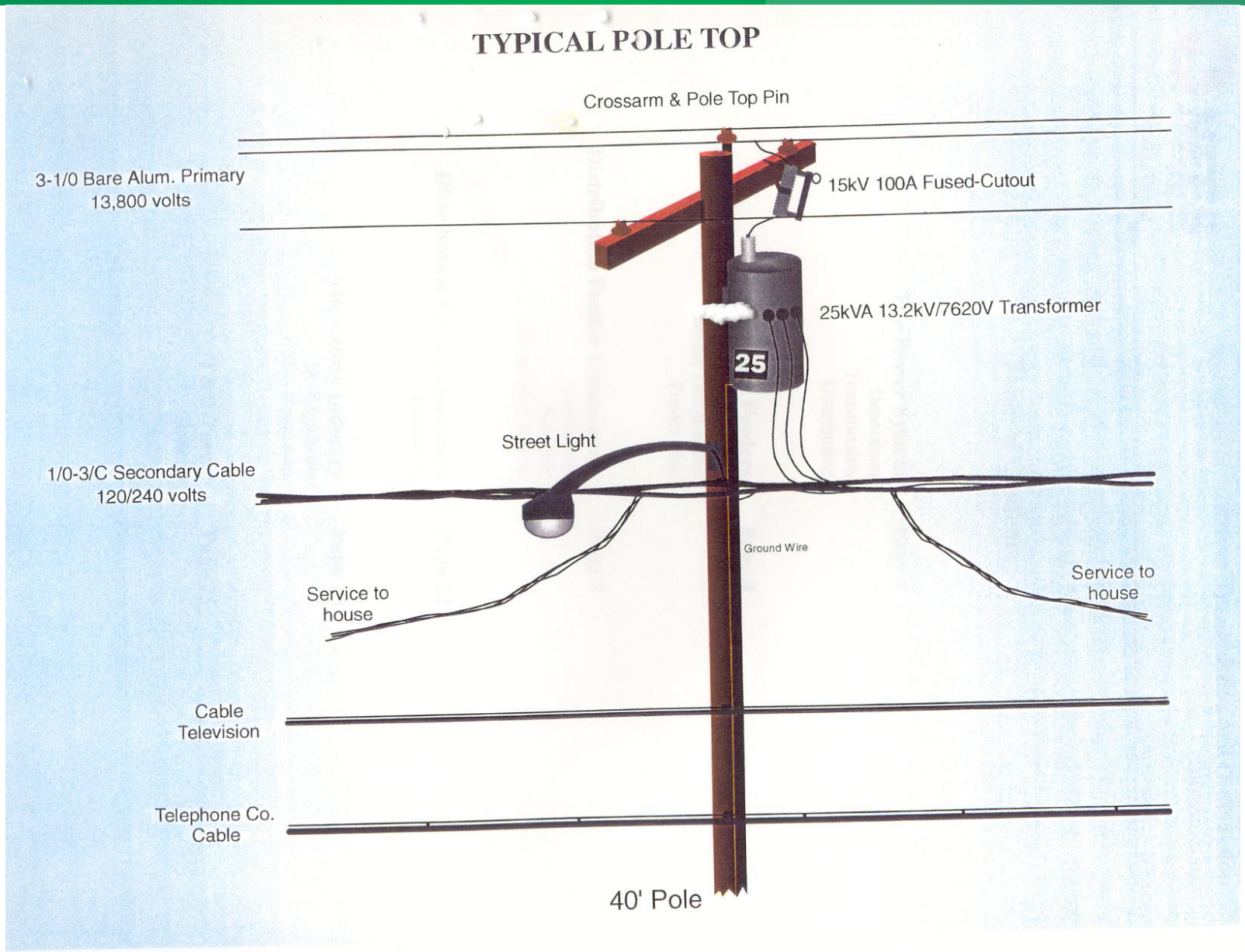


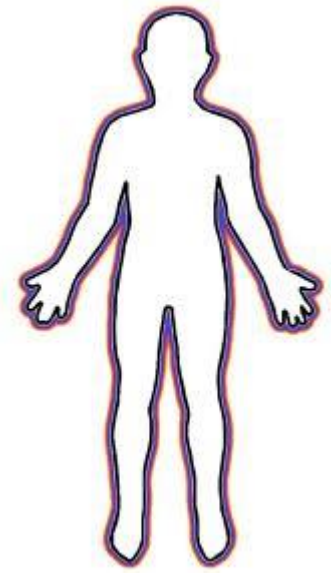
Behavior of Electricity

- Electricity seeks the easiest path to ground NO MATTER WHERE YOU ARE

- Do not create a path with conductive materials!

Effects on Human Body

- Ventricular Fibrillation –200-500M-mA
  - –Approx same power as holiday bulb
  - –Life threatening effect to heart
- Cardiac Arrest
- Tissue Destruction
- Flash Burn/Blindness



70% Water
30% Carbon

Dangerous Conditions You May Encounter

Electrical Exposure Potential:

- Wires down
- Substation fires
- Pole-top transformer fires
- Structural fires
- Manhole fires
- Spills or leaks

Overhead Transmission & Distribution Lines

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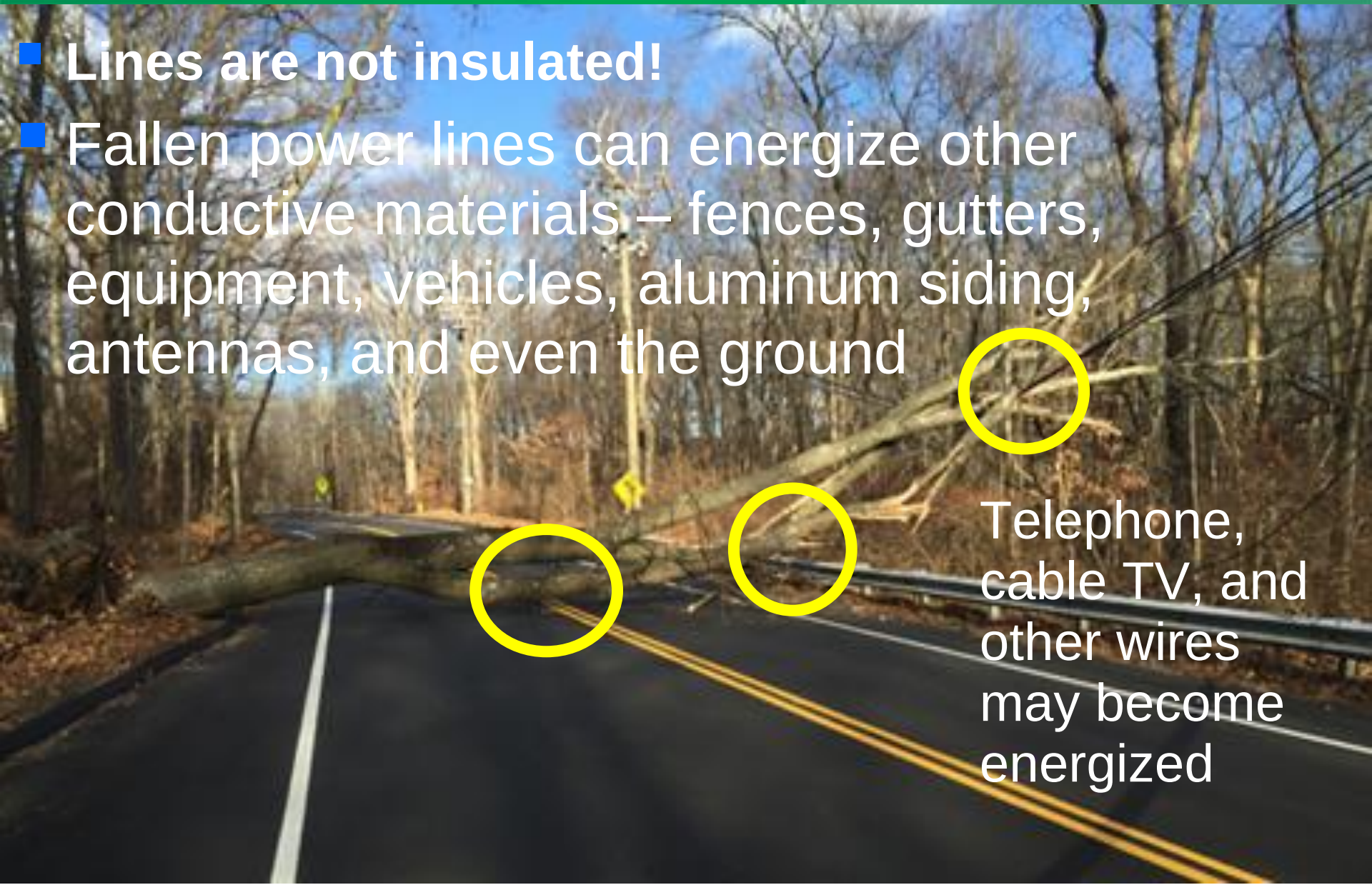


- **Lines are not insulated!**
- Fallen power lines can energize other conductive materials – fences, gutters, equipment, vehicles, aluminum siding, antennas, and even the ground

Responding to an Emergency Call

If a power line is in contact with a Vehicle that has occupants:

- Call Eversource emergency number and indicate it is a “Priority 1”
- Do not approach vehicle until power is confirmed by us to be turned off
- Keep all personnel and vehicles at least 40 feet away
- Have occupants stay in the vehicle if possible
- If occupants must evacuate…instruct NOT to touch vehicle and ground at same time: jump from vehicle and shuffle away with feet very close together

Fire Fighting Equipment Warning

- Fire-fighting ladders, vehicles, and tools are not insulated and can be conductive
- Fire department personal protective equipment (PPE) will NOT protect against specific electrical hazards

Overhead Lines and Pole-top Transformer Fires

- Secure the area
- Keep vehicles / apparatus away, be ware of possible falling equipment or wires
- Call Eversource Dispatch
- Do not spray energized equipment with water (consider it ALL energized)
- When protecting exposures near electrical hazards…BE CAUTIOUS!

Substation Fires

- Call Eversource Dispatch immediately if fire or other problem is discovered
- Never enter!
- Secure the area outside the fence line
- Protect surrounding structures

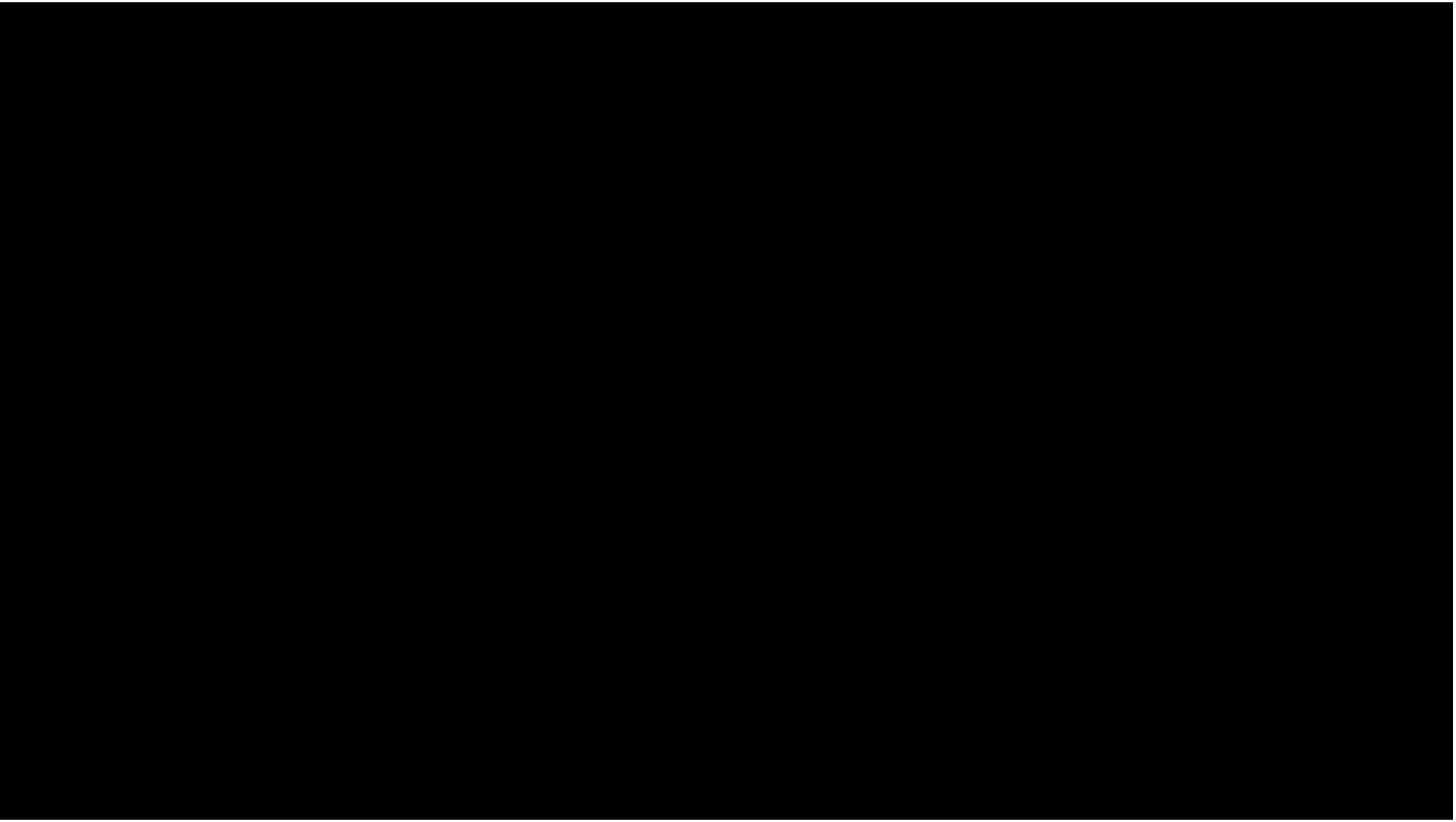
Structure Fires

- Call Eversource Dispatch
- Never pull the meter
- Never cut the service wire without authorization

Underground Manhole Fires

- Secure the area
- Call Eversource Dispatch
- Never park, STAND OVER or remove manhole cover or enter manhole unless clearance is given
- Flood manhole from a safe distance – 25’ away

Safety Video - Step Potential



Vegetation Management

MA Vegetation Management 2019

- 3,027 Electric Distribution Line Miles
- 4 year pruning cycle
- 80 – 100 tree crews working daily

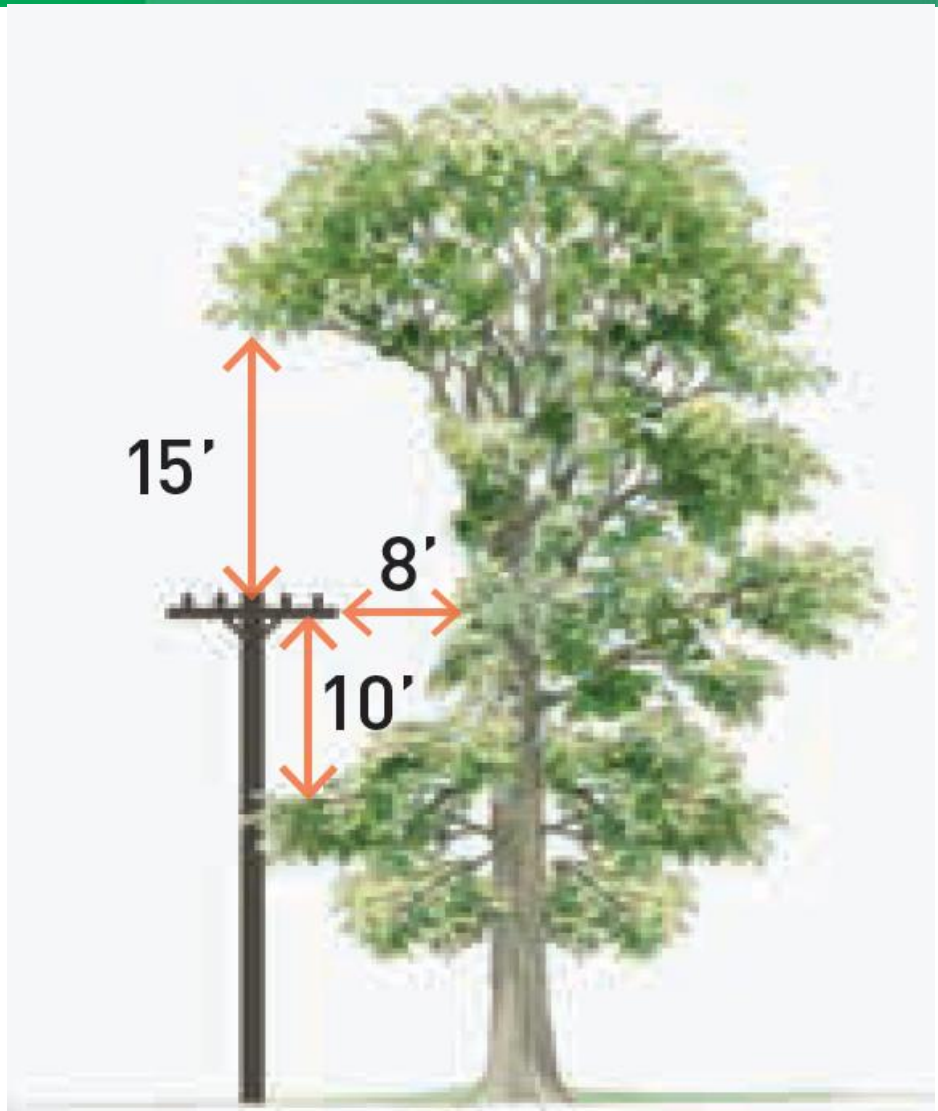
Distribution System Programs

- Scheduled Maintenance Trimming (SMT)
  - Management of vegetation along distribution circuits
- Reliability Tree Work (RTW)
  - Increased clearance along major portions of circuit
- Tree Removal
  - Removal of hazard and risk trees
- Right-of Way Maintenance
  - Vegetation management within the the ROW
- Mid-Cycle
  - Between-cycle trimming
- Vine Program
  - Management of vines growing on poles and guy wires

Distribution System Programs

Schedule Maintenance Trimming (SMT):

- 25% of system miles are trimmed each year
- 3,000 miles each year approx.
- 100% Quality Control Audits



<u>Line Clearance Specification</u>

8 Feet Side of Conductors
15 Feet Over Conductors
10 Feet below Conductors

Distribution System Programs

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Reliability Tree Work

- Increased clearance along major portions of circuit
  - Landowner Permission Required
  - All branches and tall growing trees within 15 ft. removed

Before

After

Distribution System Programs

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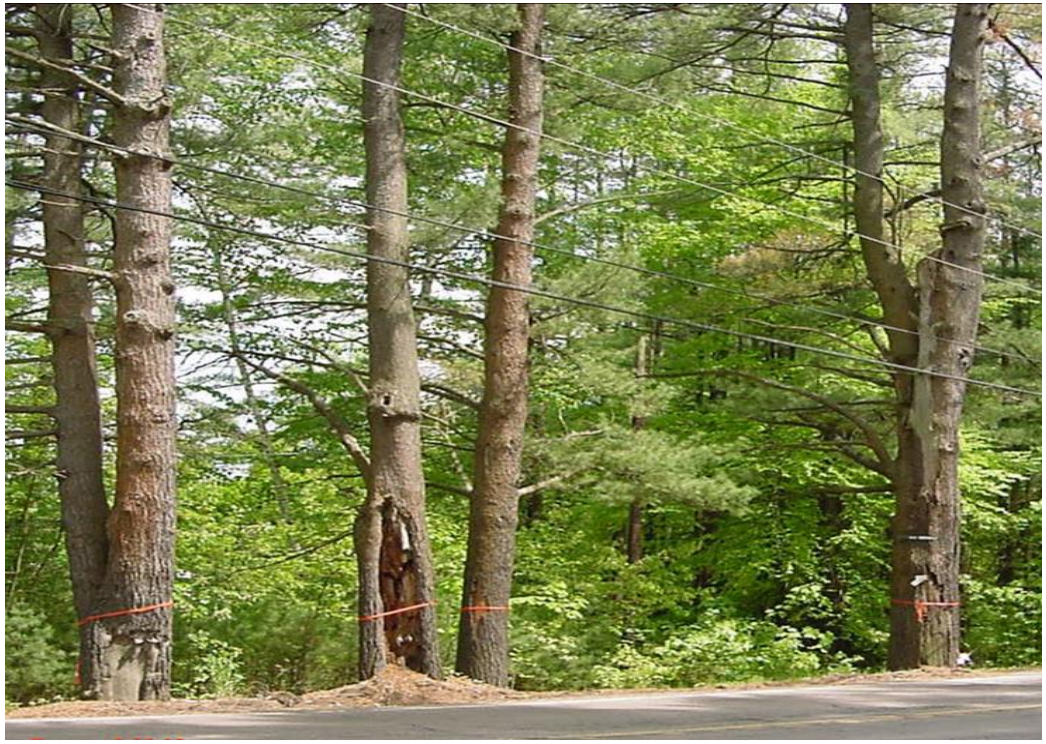
Tree Removals:

- Over 28,000 trees removed annually
- Remove diseased and decayed trees that can cause major damage to facilities



Distribution System Programs

Tree Removals Biggest challenges

- *Oak Mortality*
- *Emerald Ash Borer*

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Right-of-Way Maintenance

Before **After**

Distribution Programs

Mid-Cycle Maintenance Trimming:

- Proactive Mainline Spot Improvements

Vine Program

Emergent Work

- Capital Construction
- Customer Request
- Municipal Partnering
- Outage Investigations

Questions