

# Real-time Grid Monitoring for Storm Resilience

Fault identification for public safety and storm recovery



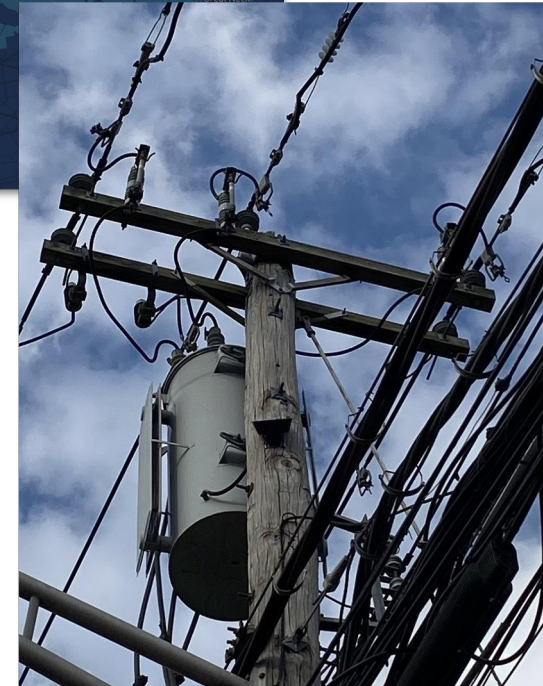
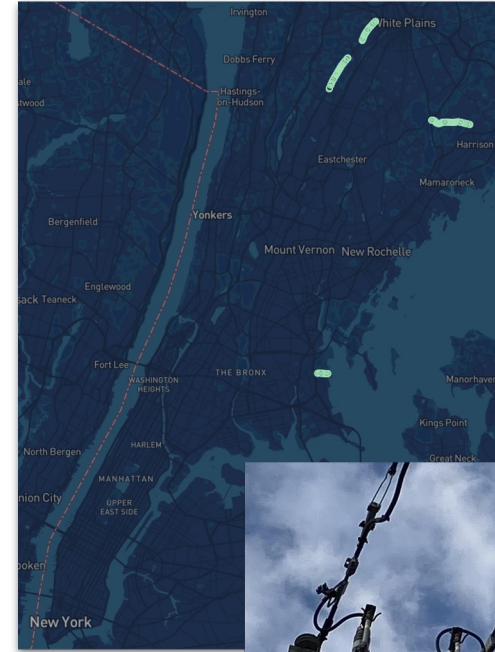
Gridware. 



# Pilot Overview



- **100 sensors deployed** in storm-prone areas
- **Blind testing** at EPRI Lenox Lab







# Pilot Operational Results

Gridware accurately identified **ALL** grid events with Con Edison and passed **ALL** blind tests with EPRI

## Event

## Gridware Observed

Line Break



Pole Tilt



Conductor Clash



Arcing



Pole Top Equipment Failure



Protection Device Operation



Vegetation Contact



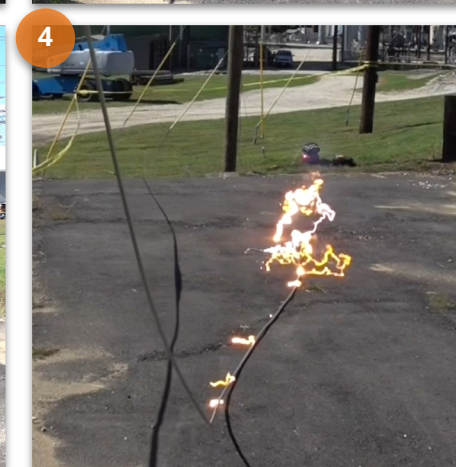
Outage - Momentary



Outage - Sustained



Line Energization



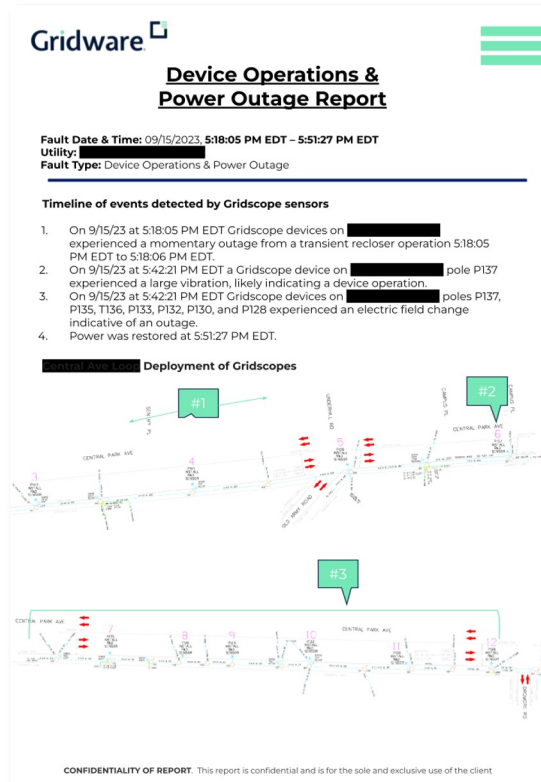
Arcing identified by Gridscope at Lenox Lab

# Major Events Detected for Con Edison

*Emergent:*

## Overhead equipment failure

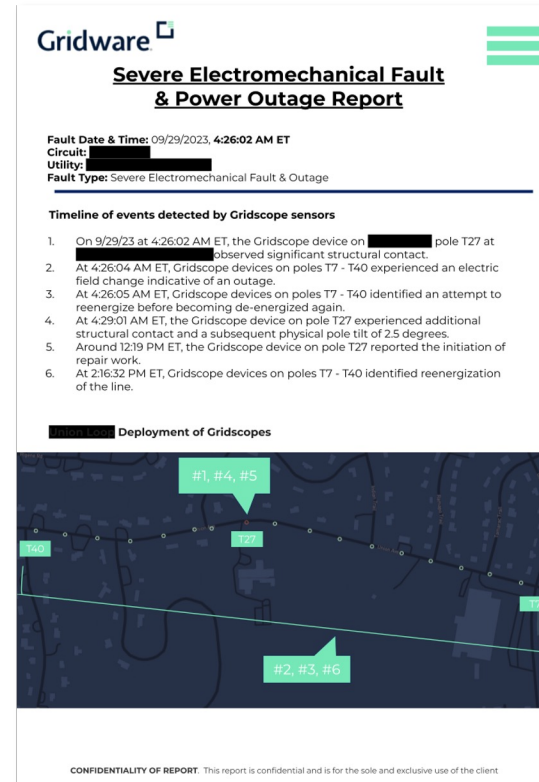
leading to recloser lockout and sustained service disruption



*Emergent:*

## Large tree on power line

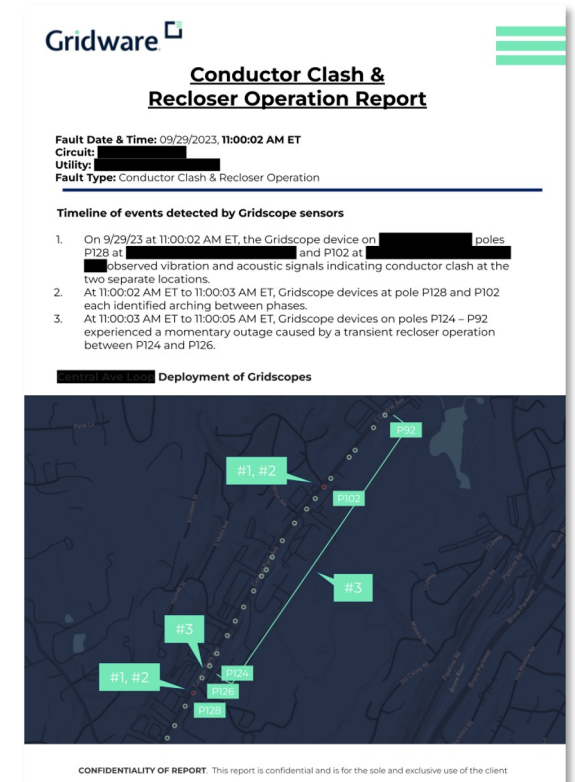
leading to recloser lockout and sustained service disruption



*Non-Emergent:*

## Conductor clash and arcing

leading to a momentary service disruption





# Pilot Learnings + Takeaways

## Easy installation & commissioning:

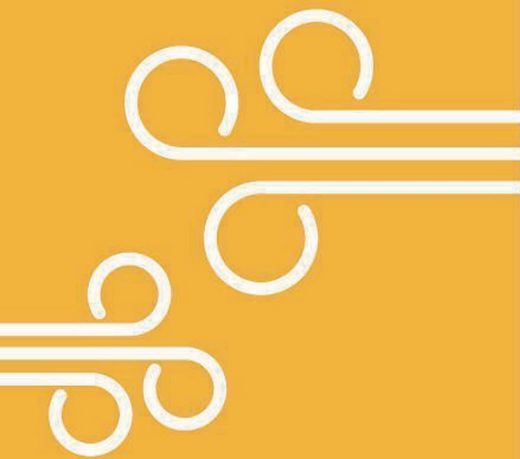
- 15 minutes per device
- Lines remain energized
- No IT integration

## System accuracy surpassed expectations:

- 11 field events identified over pilot duration
- All independently verified as accurate by Con Edison
- No false positive alerts

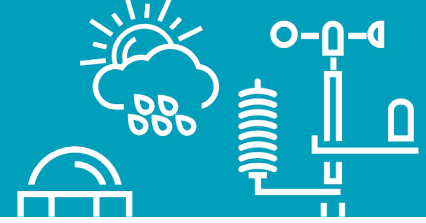
## Provides immediate operational value:

- Detects live lines down, improves public safety
- Curtails patrol durations + expedites outage restoration, improves SAIDI/SAIFI while reducing opex





# Next steps: **Anticipated Pilot Expansion**



“In a short period of time and with only 100 units deployed, we received 3 alerts which were **all validated with actual events** on our system. Each event notification was received **within minutes** with **pinpoint accuracy** on locations.

**We believe a second phase of the pilot with a larger scope is warranted** to more extensively test the technology in addition to evaluating recently developed additional sensors which could further assist OH storm response planning and restoration activities.”

*Darren Scarimbolo*  
**General Manager of Electric Operations**  
**Con Edison of New York**

# Our Team



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