Orange & Rockland
a conEdison, inc. company

Our Climate Change Resilience Plan

Moving Forward

Building Climate Resilience for Our Customers

O&R has filed a Climate Change Resilience Plan that outlines our planned investments to equitably enhance our climate resilience. A resilient electric system is one that is prepared for changes in climate and extreme weather and can recover quickly after a major event, such as a hurricane or Nor'easter. These investments will reduce customer outages during extreme weather events and help to restore power more quickly when there is an outage so you can continue to count on the energy you need.

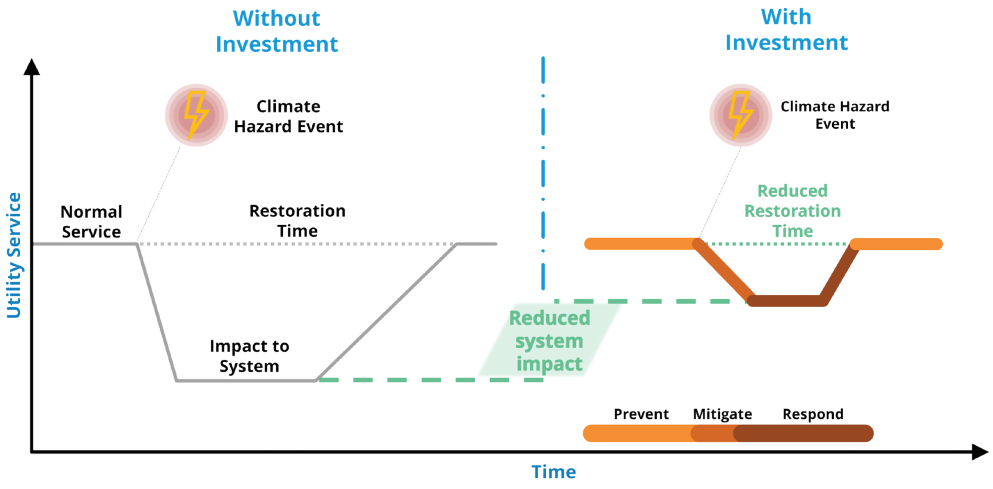
O&R's commitment to enhancing system resilience, a key component of our **Clean Energy Commitment**, has been a longstanding cornerstone of our approach to providing reliable service. Some key initiatives and projects in this pursuit are:

- **Undergrounding vulnerable overhead lines** to reduce storm-related damage.
- **Stronger, reinforced cables** to reduce the incidence of power outages from tree-related disturbances.
- **Distribution Automation and Smart Grid** technologies to improve efficiency and reliability.
- **Comprehensive vegetation management** around power lines, including increased tree trimming clearances and removal of hazardous trees that have been weakened by invasive species, such as the Emerald Ash Borer.
- **Enhancing our operations facilities, equipment and material inventory** for swift response and efficient restoration of services during emergencies.

Over the past 10 years, O&R has invested more than $83M in New York and more than $58M in New Jersey to make its energy system more resilient through its storm hardening initiative. This included deploying over 1,500 new remotely operated devices at various locations on the company's electric system that allow for the isolation of electric system problems when they develop and minimize the number of customers affected by individual outages. During Tropical Storm Isaias in August 2020, remotely operated devices prevented outages to 64,000 customers.

Our **holistic resilience approach** helps us to think strategically, innovatively, and equitably about investments to reduce both near- and long-term climate change risks.

The three main strategies in O&R's resilience approach (Prevent, Mitigate, and Respond) help us to fortify the electric grid against climate events while maintaining dependable service.



Prevent
Fortify electric grid to decrease the risk of outages.

Mitigate
Reduce the impact of outages on customers.

Respond
Enhance our recovery from power outages.

A Changing Environment

Electric System Investments for a Resilient Future

FLOODING

O&R's service territory will see more heavy rain, leading to more flooding. By 2050, O&R's service territory could see five days per year with over two inches of rain, up from the norm of three days.

O&R is investing in resilience by:

- Enhancing protection of key equipment at substations that are most likely to experience flooding.
- Increasing monitoring efforts and installing protective measures to reinforce shoreline infrastructure.
- Proactively incorporating future flooding projections, including sea level rise considerations along the Hudson River, into the design of new assets to better adapt to evolving climate conditions.

WIND AND ICE

Storms are becoming stronger and bringing higher wind speeds. Maximum wind gusts in the O&R service territory could increase to 110 mph by midcentury, and even though the region is warming, there is the potential for icing events to increase in intensity in the winter months.

O&R is investing in resilience by:

- Relocating overhead electrical lines and equipment underground for better durability and reliability.
- Strengthening overhead power lines to better withstand tree contact and reduce power outages.
- Removing hazardous trees to lessen power outages, reduce repair costs, and increase safety.

EXTREME EVENTS

Our weather is becoming more volatile. Science indicates a higher probability of stronger storms, more extreme heat waves, and other intense weather events in the future.

O&R is investing in resilience by:

- Improving system resilience and storm protection by accelerating the installation of advanced control devices and technology in the distribution system.
- Increasing storm readiness with a new control facility strategically positioned and equipped to handle more frequent and severe weather events, streamlining emergency communication and operations.
- Enhancing our ability to acquire and store essential materials such as spare transformers and emergency generators and equipment to speed up recovery.

HEAT AND HUMIDITY

As temperatures rise, we are likely to experience a greater number of extreme heat days and increasingly frequent and intense heat waves. By 2030, O&R's service territory could see up to 18 days per year with daily maximum temperatures exceeding 95°F, as compared to four days per year historically.

O&R is investing in resilience by:

- Continually reviewing design standards and specifications against the latest climate change projections for heat and humidity to determine if and when updates are necessary.
- Updating system planning processes to account for extreme temperatures, which could result in higher system loads and lower power equipment capacity.
- Consistently evaluating appropriate protocols to maintain worker safety under extreme heat conditions.

We're Building a Next-Generation, Climate-Resilient Grid for All

Jointly with our affiliate utility, Con Edison, O&R has released an Environmental Justice Policy Statement to guide future investments. As part of the decision-making process for investments, the company will consider potential benefits and impacts to disadvantaged communities.

For more information about our resiliency efforts, visit **oru.com/energyfuture**