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HOUSE OF REPRESENTATIVES
COMMONWEALTH *of* PENNSYLVANIA

House Majority Policy Committee Hearing

After the Storm: Preparing for the Future, hosted by Representative Mandy Steele

Wednesday, May 21 | Lauri Ann West Community Center

6:30 p.m. Welcome and member introductions

PANEL ONE
6:45 p.m. Kristy Stone, Vice President and Chief Customer Officer
Duquesne Light Company

John Hilderbrand, Vice President, Operations
Duquesne Light Company

Abe Amawi, Greensburg Area Director of Operations
West Penn Power – FirstEnergy

Q & A with Legislators

PANEL TWO
7:30 p.m. Joshua Ash, Director, Environmental Law & Policy Clinic,
Clinical Assistant Professor of Law
University of Pittsburgh, School of Law

Q & A with Legislators

Kristy Stone, Vice President and Chief Customer Officer
Duquesne Light Company Testimony before Pennsylvania Houses of Representatives
Majority Policy Committee

May 21, 2025

Introduction

Good evening, Chairman Bizzaro and members of the committee. Thank you for the opportunity to testify today regarding storm response and emergency preparedness following the catastrophic storms on April 29, 2025. My name is Kristy Stone. I am the Vice President and Chief Customer Officer at Duquesne Light Company. In this role I am responsible for further developing Duquesne Light's culture of customer centricity while ensuring that the company's vision of a "clean energy future for all" benefits all communities in the Pittsburgh region.

For more than 100 years, Duquesne Light Company has proudly provided electric distribution and transmission services to customers in Allegheny and Beaver Counties. The Company provides electric service to more than 600,000 customers within its service territory, and roughly 500,000 are residential service customers. Duquesne Light is fully committed to providing safe, reliable, resilient and affordable service to its customers. The purpose of my testimony today is to share information about the company's customer communications during the recent severe storm and preliminary lessons learned. I am joined by my colleague, John Hilderbrand, III. Mr. Hilderbrand is the Vice President of Operations at Duquesne Light. Following my remarks, Mr. Hilderbrand will share information about Duquesne Light's restoration process now and in the future.

The Storm

As background, it is important to acknowledge that our service territory experienced an unprecedented storm event on Tuesday, April 29, 2025, that was unlike anything in recent history. The scope and severity of the event represents the largest restoration effort – in terms of total customer outages – in our 100-plus-year history as a company.

The storm produced strong wind gusts that were among the fastest speeds ever recorded in our area – at nearly 80 miles per hour. During restoration efforts, a second, smaller storm occurred on Thursday, May 1, resulting in several thousand outages. Overall, more than 325,000 Duquesne Light customers lost power as a result of the severe weather. My colleague, John, will provide information on the extent of the damage sustained to the Company's infrastructure as a result of the storm.

Duquesne Light Company Response – Laudable albeit imperfect

Duquesne Light activated emergency response plans and mobilized more than 1,000 crew members — a genuine "all hands-on deck" effort — to safely restore power as fast as possible. I'd be remiss if I did not acknowledge that we are immensely proud of our crews who worked consecutive 16-hour shifts to restore service. Their nonstop work helped us bring back nearly 95% of our customers within five days, despite facing damage to a magnitude we have not seen before.

With that said, we understand the frustration and hardships that come with extended power outages. As we enter the peak of storm season, preparedness is likely on everyone's mind given what we just experienced. We are keenly focused on identifying and implementing lessons learned to improve our response to future events.

In the coming weeks, DLC will undergo an extensive internal review to find opportunities for improvement, especially as our region grapples with increasingly severe weather. We will also partner with the Pennsylvania Public Utility Commission to review our response to the April 29 storm.

More details on these findings and our future action plans will be made available, but in the meantime, here are some areas where we plan to make near-term changes:

Communication
Communication remains one of our biggest opportunities. We've made considerable progress since launching a new outage management system in 2024, yet this storm demonstrated that more needs to be done. When severe weather hits, we know how important it is to get timely, accurate and specific outage communications that help our customers feel more at ease and empowered to make informed decisions. Going forward, we plan to complete a comprehensive review of our current customer notifications and modify them as needed to ensure that the messaging is clear and consistent. Simultaneously, we're working on technical enhancements to improve the overall outage experience for our customers.

We also intend to focus on providing more localized estimated times of restoration (ETR) so that customers can plan accordingly.

Finally, we will leverage internal resources to act as liaisons with communities that are hardest hit during a storm. This will help streamline the flow of communication and address questions and concerns in a timelier manner.

Technology
Technology is another focus point for us. The overwhelming call volume experienced at the peak of the storm challenged our system and made it difficult for customers to report an outage, including on our website and mobile app. We're evaluating these challenges and building a plan to prevent further issues.

Moving Forward

There's no doubt that the weather in our region is changing. We're facing storms at a level that we aren't used to in southwestern Pennsylvania, which makes our commitment to providing safe, reliable service and strengthening the grid more important than ever.

We appreciate your understanding and patience as we work through these improvements and find better ways to serve you.

John Hilderbrand, II, Vice President Operations
Duquesne Light Company Testimony before Pennsylvania Houses of Representatives
Majority Policy Committee

May 21, 2025

Introduction

Good evening, Chairman Bizzaro and members of the committee. Thank you for the opportunity to testify today regarding storm response and emergency preparedness following the catastrophic storms on April 29, 2025. My name is John Hilderbrand II. I am the Vice President of Operations at Duquesne Light Company. With 40 years of operations and utility experience, I oversee the company's critical operations functions.

Advanced Preparation for the Storm

As my colleague Ms. Stone has shared, the event on April 29, 2025, was unprecedented. We prepared for this weather event several days in advance by standing up Duquesne Light's Incident Management Team, adjusting our staffing schedules and implementing other contingency plans in order to immediately begin the assessment, response and restoration efforts after the storm hit. Once we understood the full impact of the storm, we increased both internal and external resources. Internal resources were increased through our storm response plan where storm roles were activated for the majority of DLC employees to assist in restoration efforts. External qualified resources were brought in to help with damage assessment, vegetation clearing, and repair of facilities. DLC deployed more than 1,000 crew members, including over 600 external resources.

While we made preparations based upon the best weather intelligence we had in the moment, we needed to quickly expand our efforts as it became clear how impactful this event turned out to be. The heavy winds primarily downed trees, which in turn damaged our facilities, poles transformers and wires and caused thousands of separate reports of hazards that all had to be cataloged and carefully addressed.

Allison Park, Carnegie, Churchill, Coraopolis, Fox Chapel, Gibsonia, Monroeville, and City of Pittsburgh were some of the hardest hit areas in terms of overall damage and number of customer outages. However, almost every region of our territory suffered significant damage.

Over the course of nine days, we repaired approximately:

- **80** miles of wire (further than the travel distance from Pittsburgh to Johnstown)
- **306** Transformers
- **235** Poles

This work enabled crews to restore service to about 95% of the customers impacted by the April 29th storm within five days, and 99% of the customers impacted within seven days.

Safely restoring power in the aftermath of such a severe storm involves intricate coordination among multiple teams, from damage assessment to resource allocation. Our crews worked tirelessly around the clock, facing hazardous conditions, to restore power as safely and quickly as possible.

Prioritization Framework, Safety and Process

Generally, Duquesne Light prioritizes restoration during a storm as follows:

- **Public safety hazards** such as wires that are down across major highways, burning wires or equipment or building fires will be made safe; this work may not always include restoration or repair.
- **Public health and safety facilities (critical customers)** such as hospitals, police, fire and emergency facilities, water and sanitary authorities, nursing homes and assisted living facilities, etc.
- **Major circuits** that enable us to safely restore power to the largest volume of customers in the shortest amount of time.
- **Small neighborhoods**, individual homes, and businesses.

The Company's execution of this prioritization framework is contingent upon available information, resources and crews, among other factors.

Historically, storms within our service territory, including major events, have been more localized geographically. The magnitude of this storm resulted in public safety hazards and outages at public health and safety facilities across most of our service territory. To respond to the widespread damage, the Company nearly tripled the size of our overhead construction resources in a matter of a few short days.

Challenges and Opportunities

Our service territory geography and terrain are unique. We have everything from crowded city streets to more isolated, hard-to-reach rural areas. We have a significant amount of vegetation and heavily wooded areas surrounding our residential areas and business districts. In addition, downed trees and debris from the storm resulted in significant road closures. For example, Allegheny County saw 34 county-maintained roads closed due to downed trees. These factors add a layer of complexity to navigating our service territory.

- **Vegetation Management**

Vegetation management will remain a critical part of our efforts to lessen future storm damage. Downed trees outside of our right of way are the leading cause of outages in our area, especially during severe weather, and it's paramount that we maintain a robust program that prunes or removes vegetation that could directly interfere with our equipment. To be successful in this endeavor, we need the support and collaboration of our communities and neighbors. We recently

launched our 2025 vegetation management program that will maintain approximately 38,000 trees along 1,300 miles of power lines in Allegheny and Beaver counties.

- **Investing in the Electric Grid**

We remain committed to making enhancements to ensure the reliability and resilience of the grid, especially during severe weather. We're investing at least $1.9 billion into upgrading and modernizing our infrastructure by 2027, including updating aging equipment and incorporating new technologies that enable better monitoring and quicker response times. This investment requires an appropriate balance between reliability, affordability and sustainability.

Moving Forward

Looking ahead, we recognize the need to enhance our infrastructure and disaster response strategies. We are committed to modernizing our grid by investing in advanced technologies and strengthening our assets. Partnerships with local and federal agencies will be key to ensuring a more resilient system. These efforts will minimize outage duration and enhance communication during emergencies, providing our customers with safe, reliable, resilient, and affordable service.

Pennsylvania Bow Echo

Climavision Horizon AI HIRES

Climavision

CASE STUDY

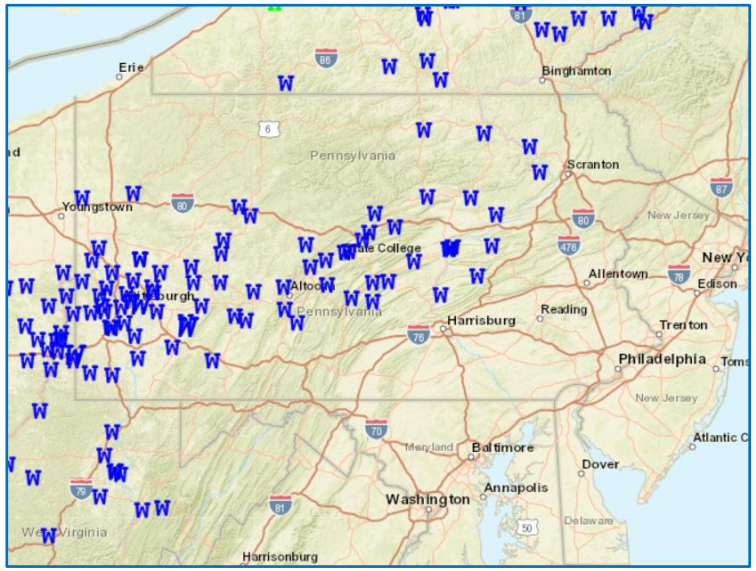
April 29, 2025

Pennsylvania

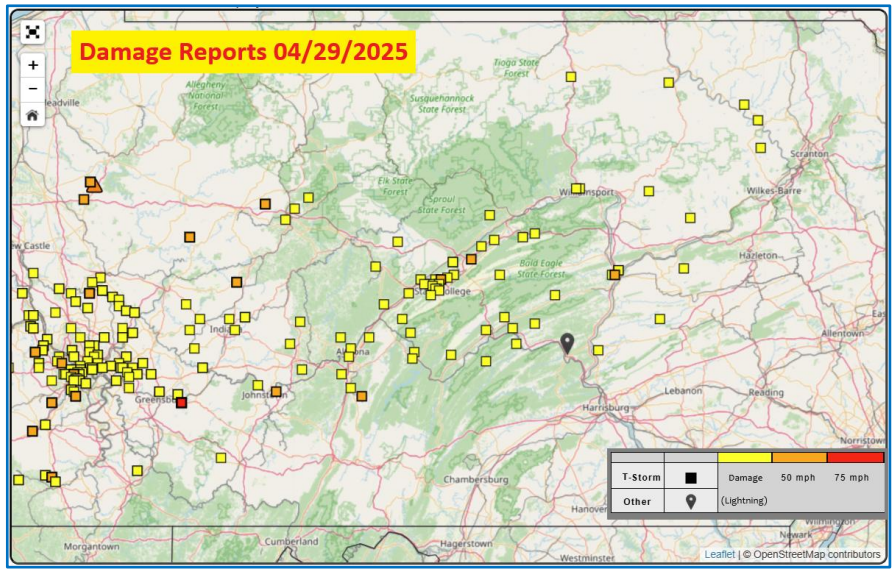
Bow Echo

A widespread, long-lived line of thunderstorms pushed across central and western Pennsylvania during the afternoon and evening hours of April 29, 2025, producing widespread wind gusts near 70-80 mph and isolated wind gusts as high as 110-120 mph. Damage to trees, buildings, and infrastructure occurred over a wide area, with power outages lasting for multiple days in Allegheny County. **Climavision's HIRES model consistently signaled these storms days ahead and with high accuracy at least 33 hours ahead of the event.** The model showed a higher wind potential than other publicly available models such as the HRRR and MRMS and **was confirmed with ground truth measurements during the event.**

Note: each SPC wind report is 50+ knots, or 58+ mph, the threshold for a severe thunderstorm.



SPC Storm Reports



Credit: National Weather Service

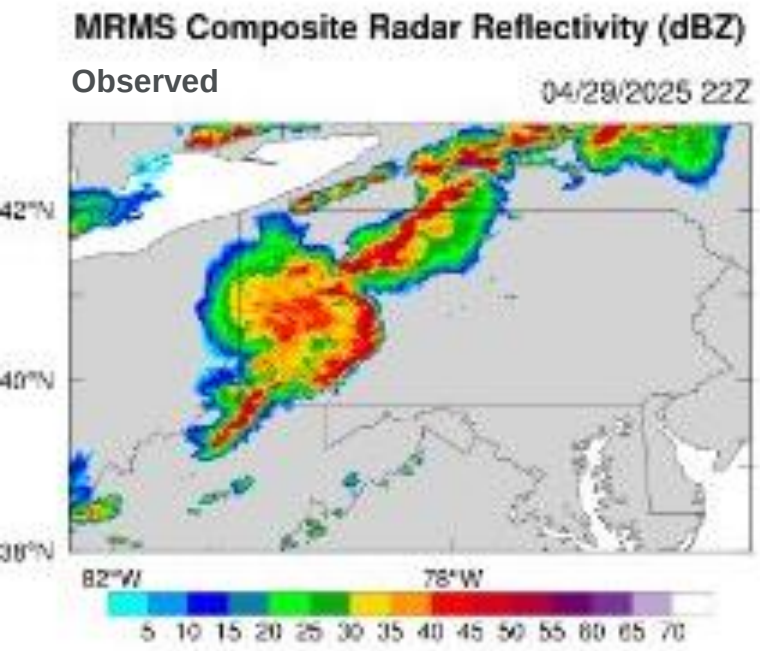
CASE STUDY

April 29, 2025

Pennsylvania
Bow Echo

Model Run time: 12 UTC 28 April 2025

Forecast Valid time: 22 UTC 29 April 2025



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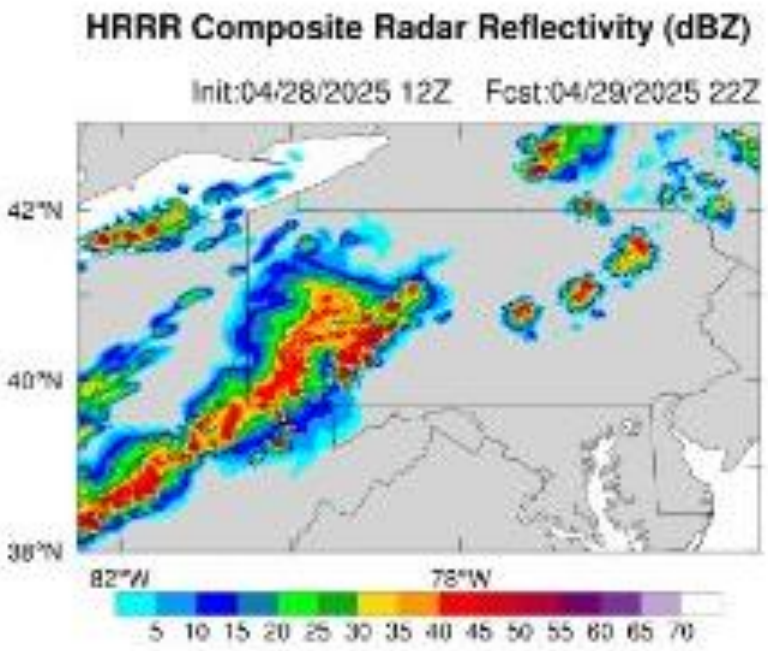

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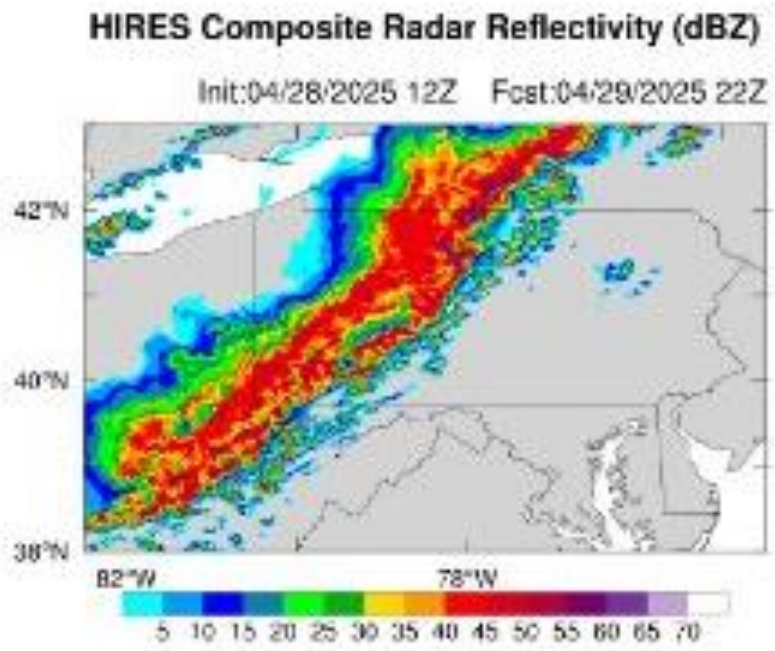

Climavision Model

Climavision

CASE STUDY

April 29, 2025

Pennsylvania

Bow Echo

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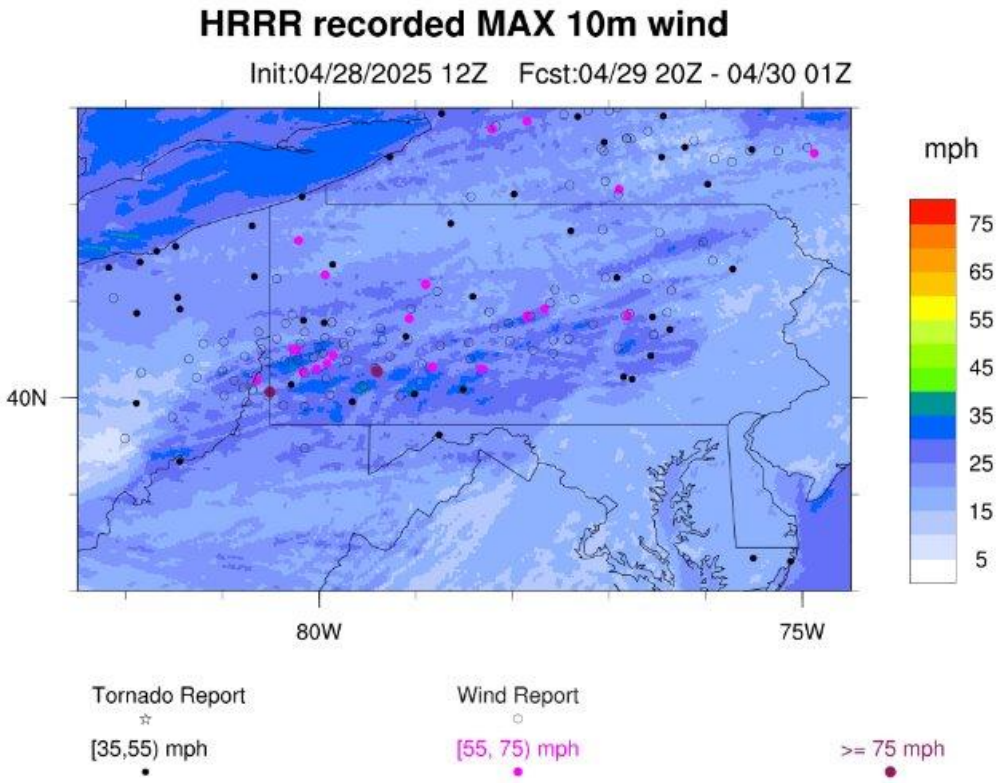

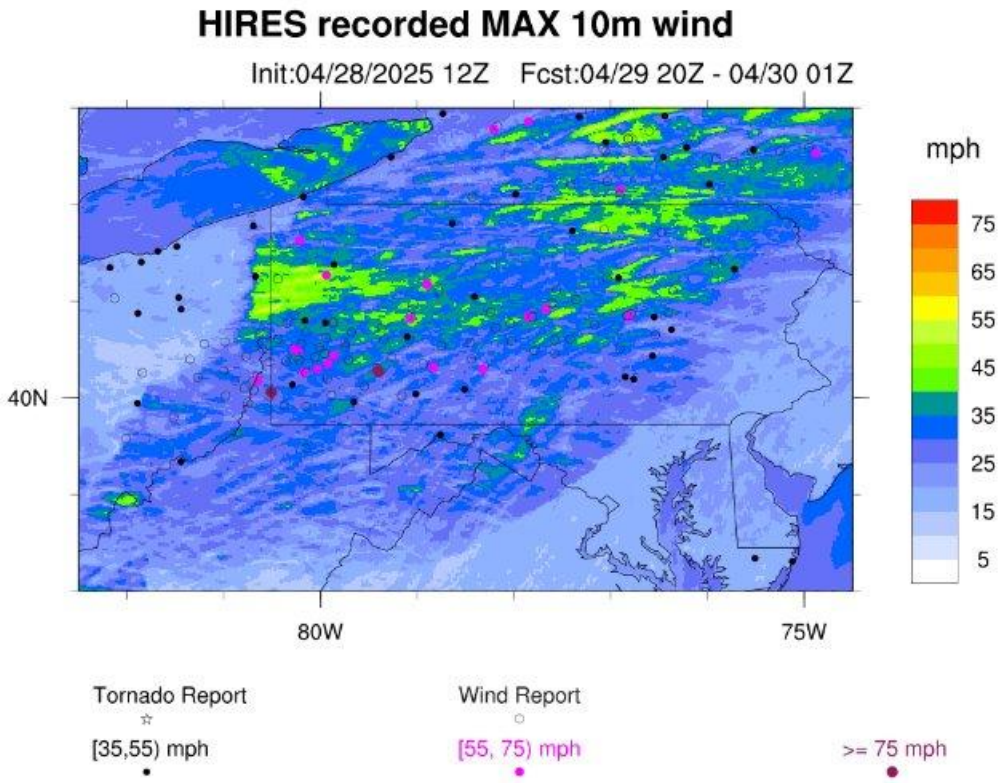

Public Model

Model recorded 10-m maximum wind speed (shaded)
Observations from NWS & ASOS (markers)

Climavision Model

Climavision

CASE STUDY

April 29, 2025

Pennsylvania

Bow Echo

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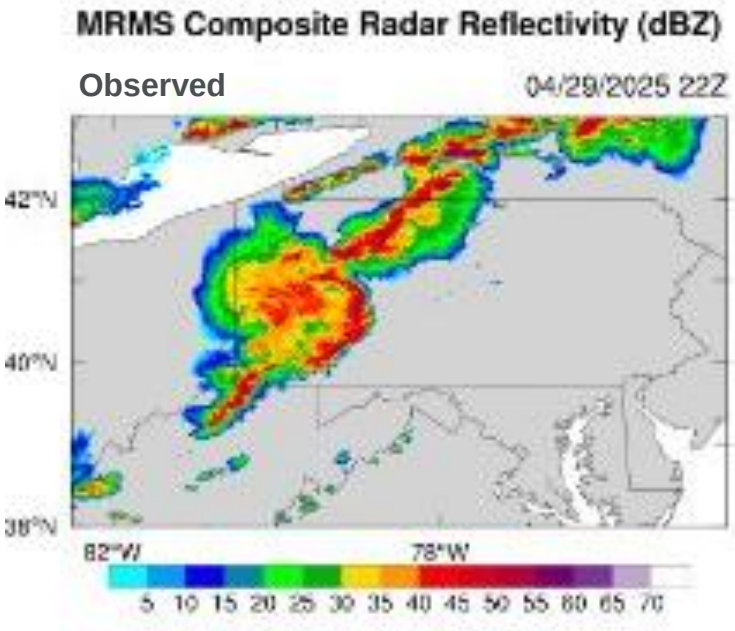

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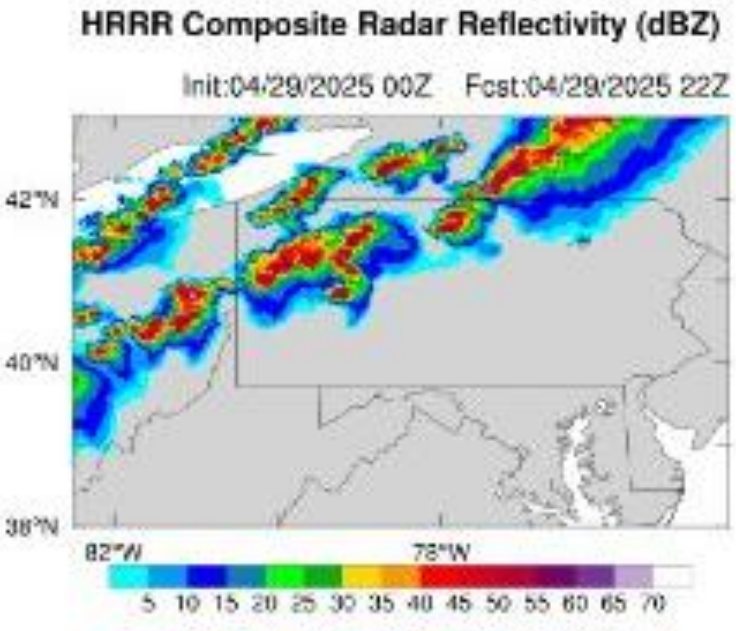

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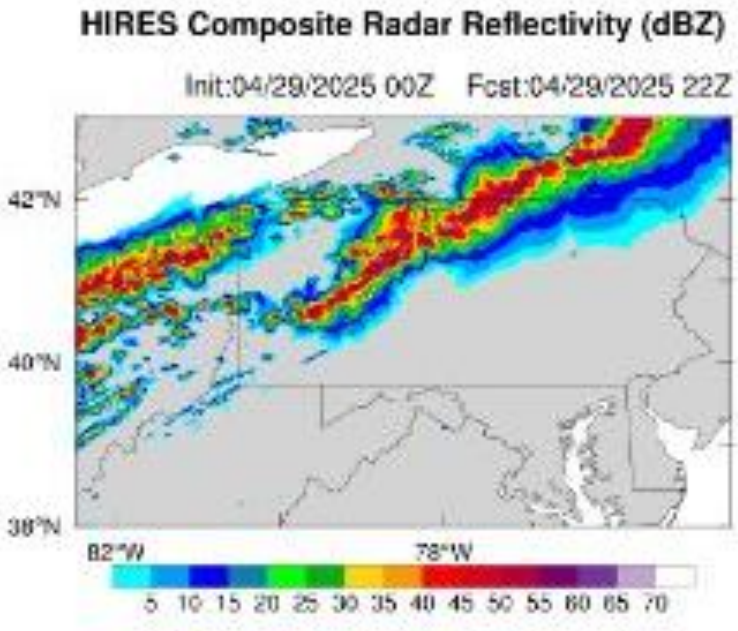

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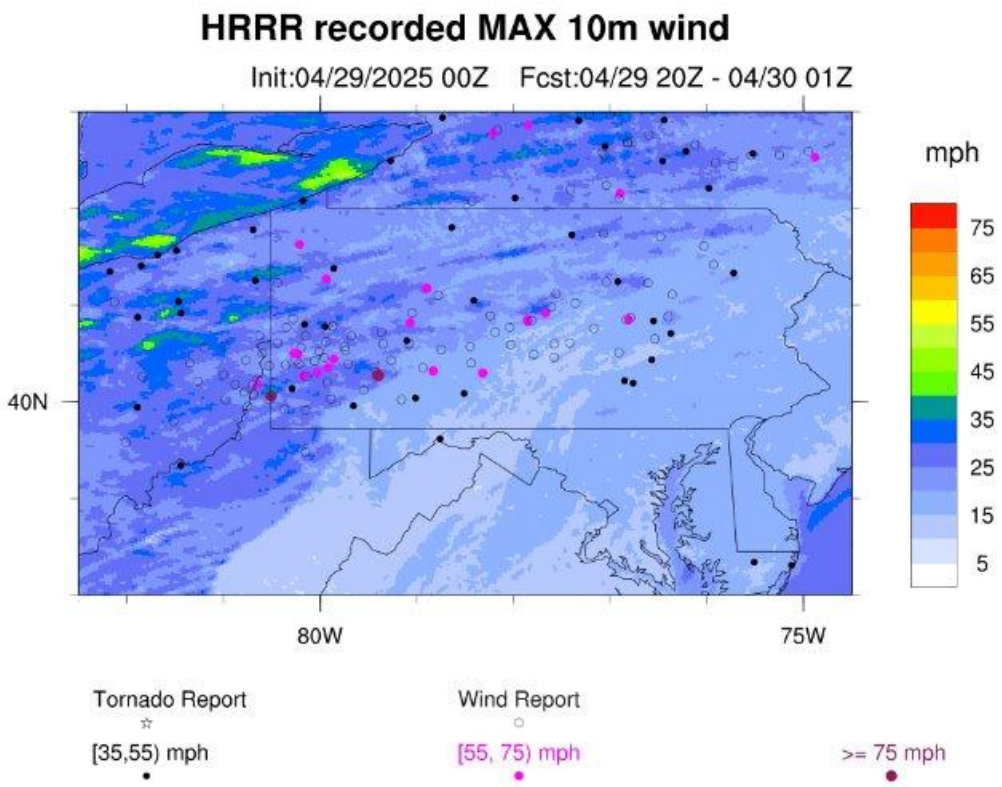

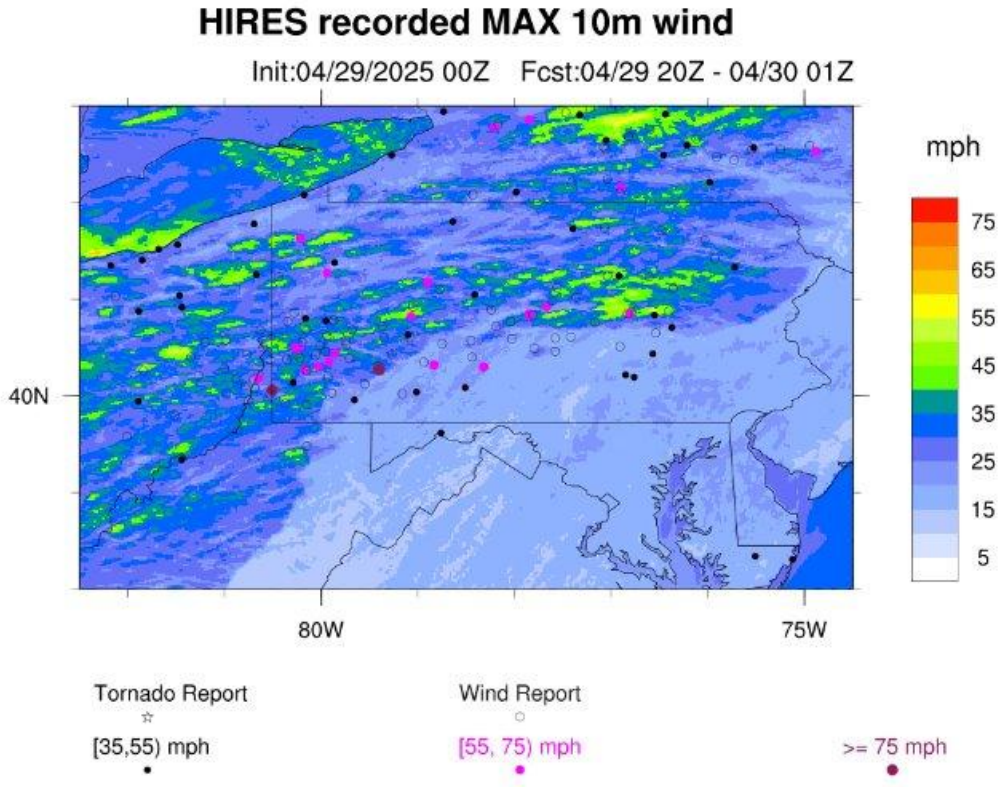

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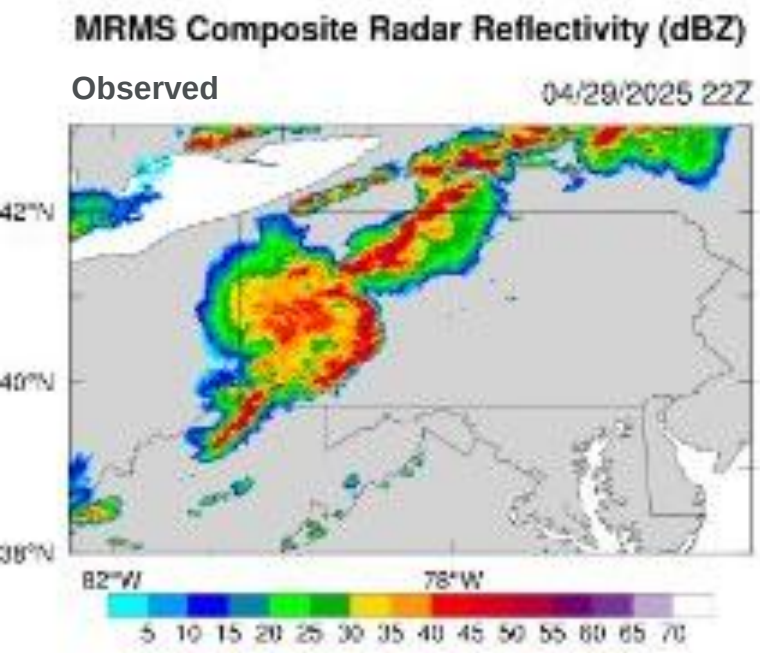

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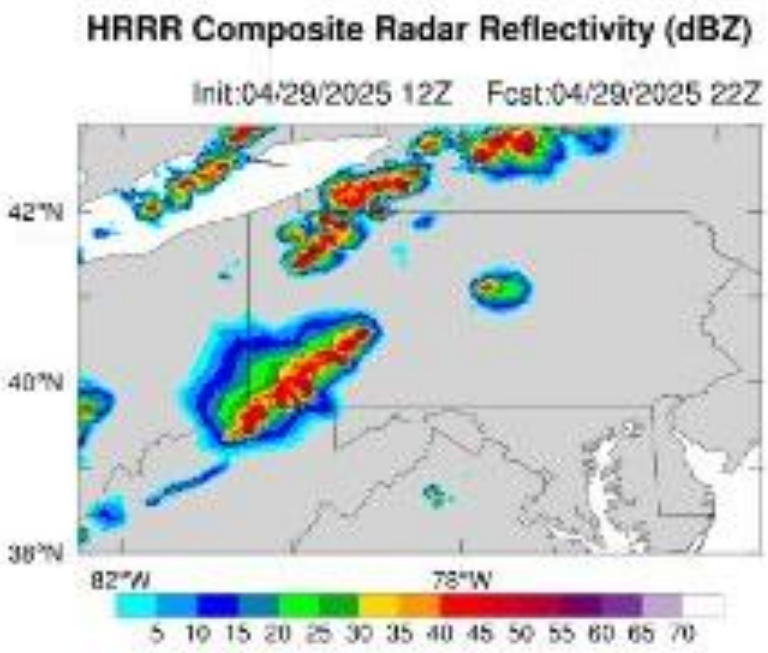

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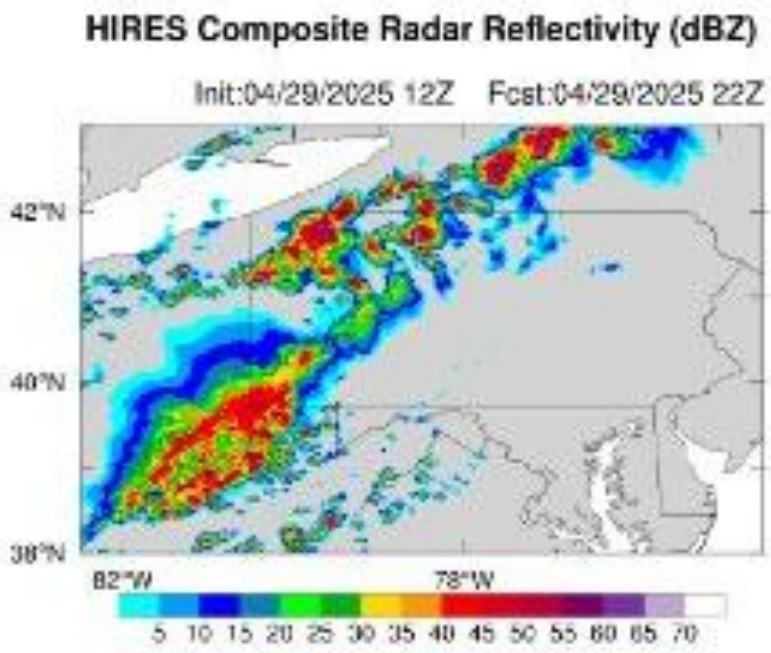

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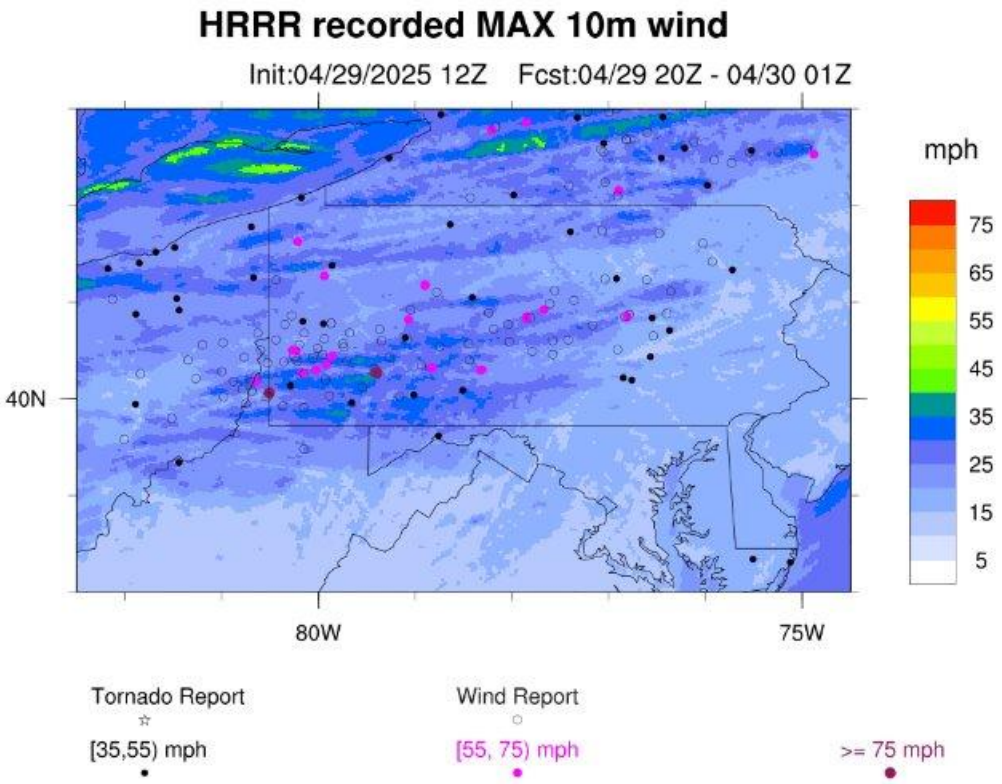

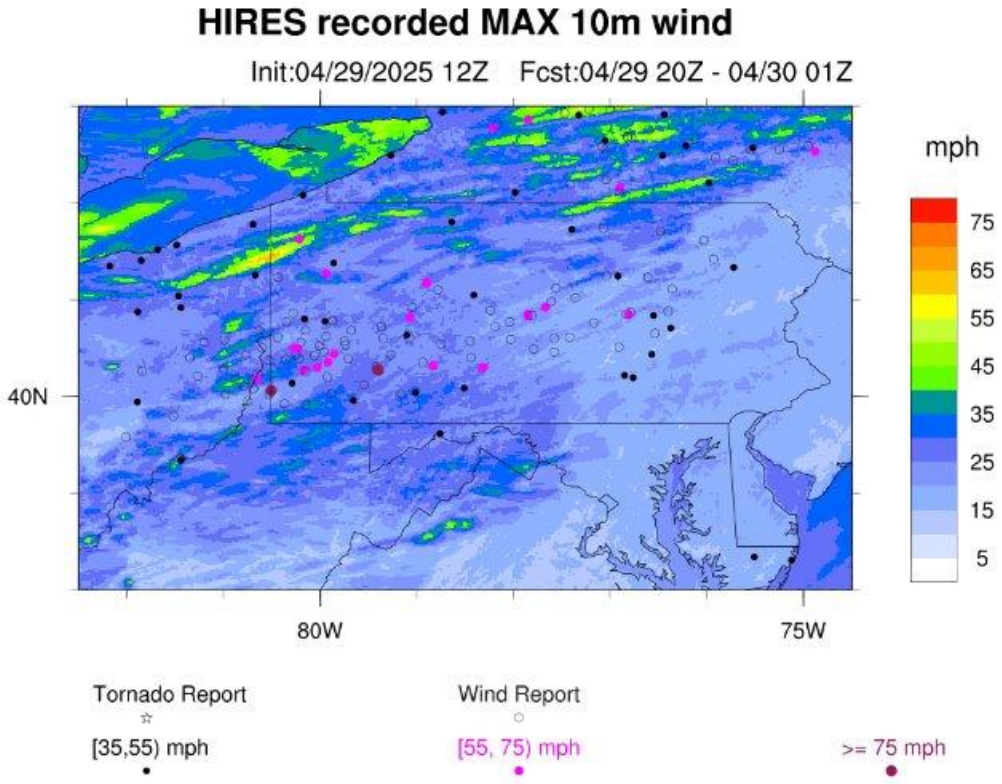

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Climavision Model

Climavision

CASE STUDY

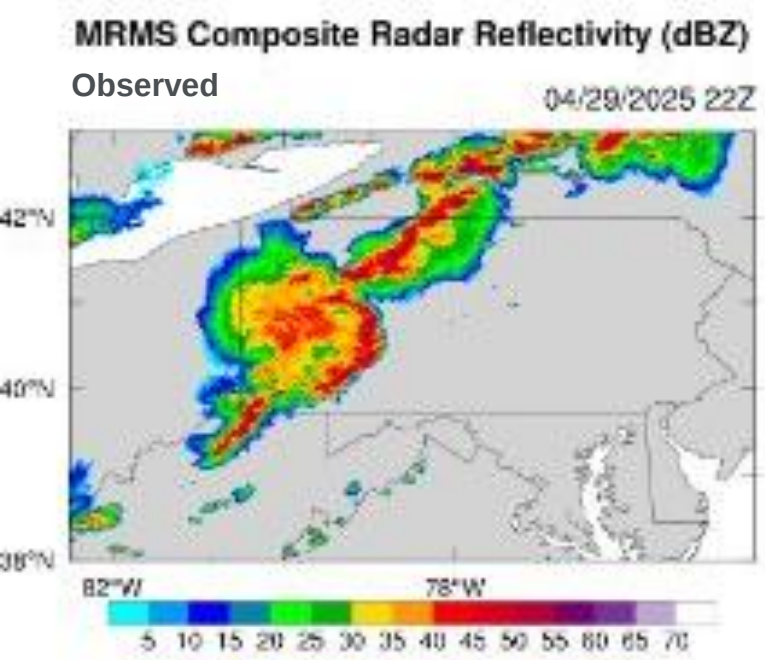
April 29, 2025

Pennsylvania

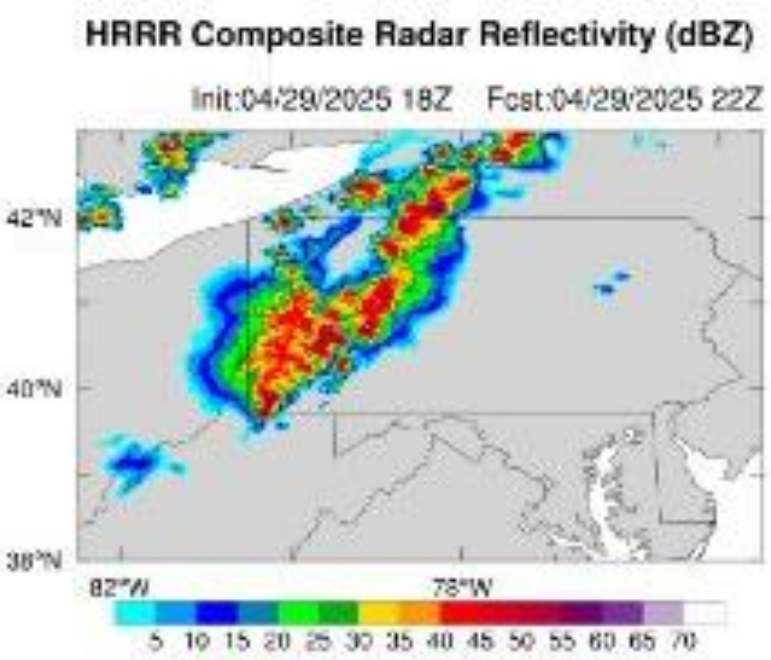
Bow Echo

Model Run time: **18 UTC 29 April 2025**

Forecast Valid time: **22 UTC 29 April 2025**



Public Model



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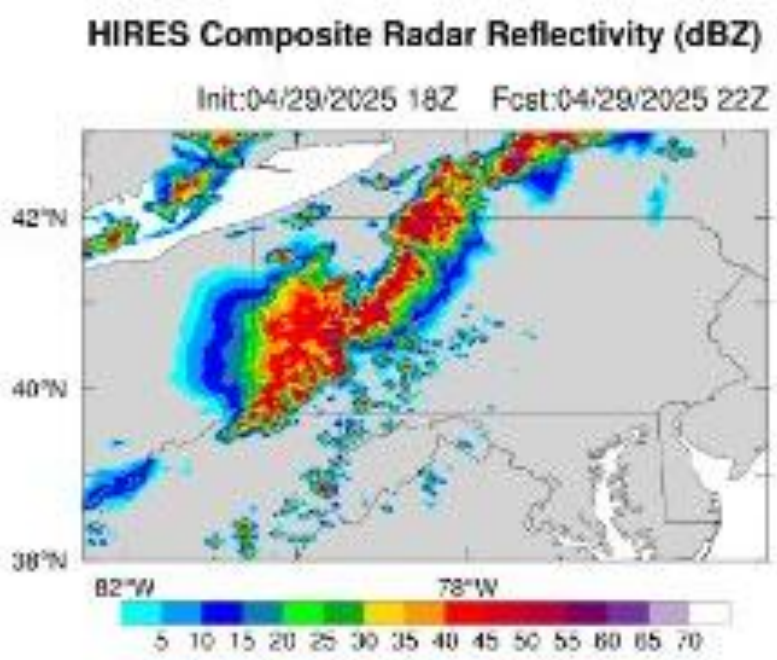

Climavision Model

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April 29, 2025

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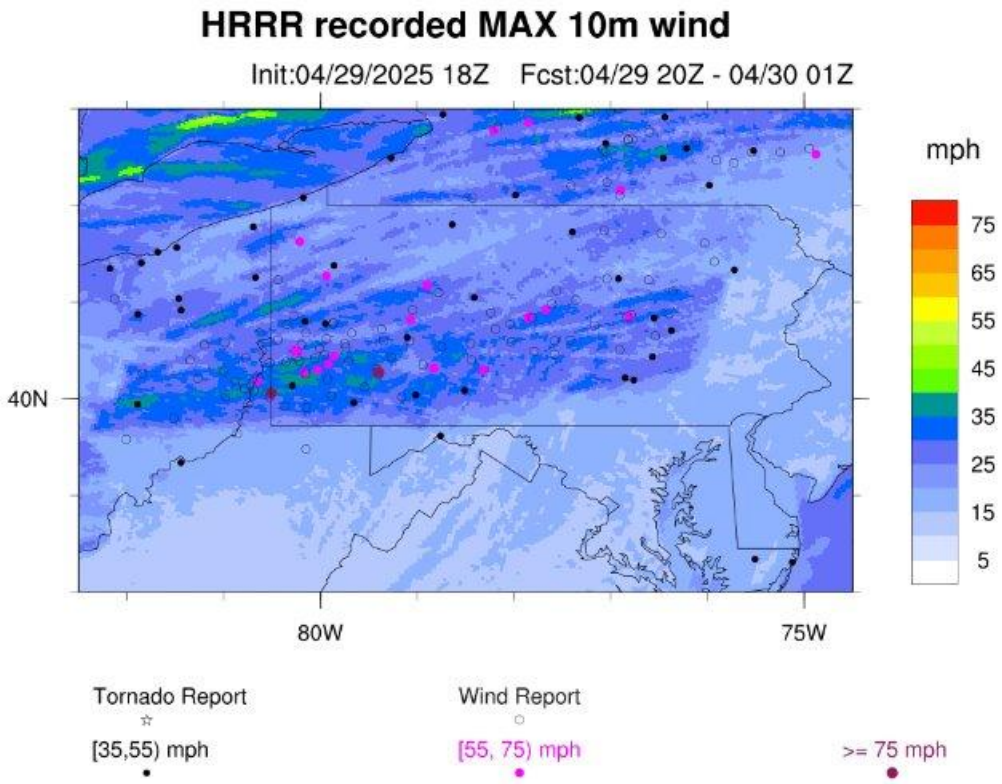

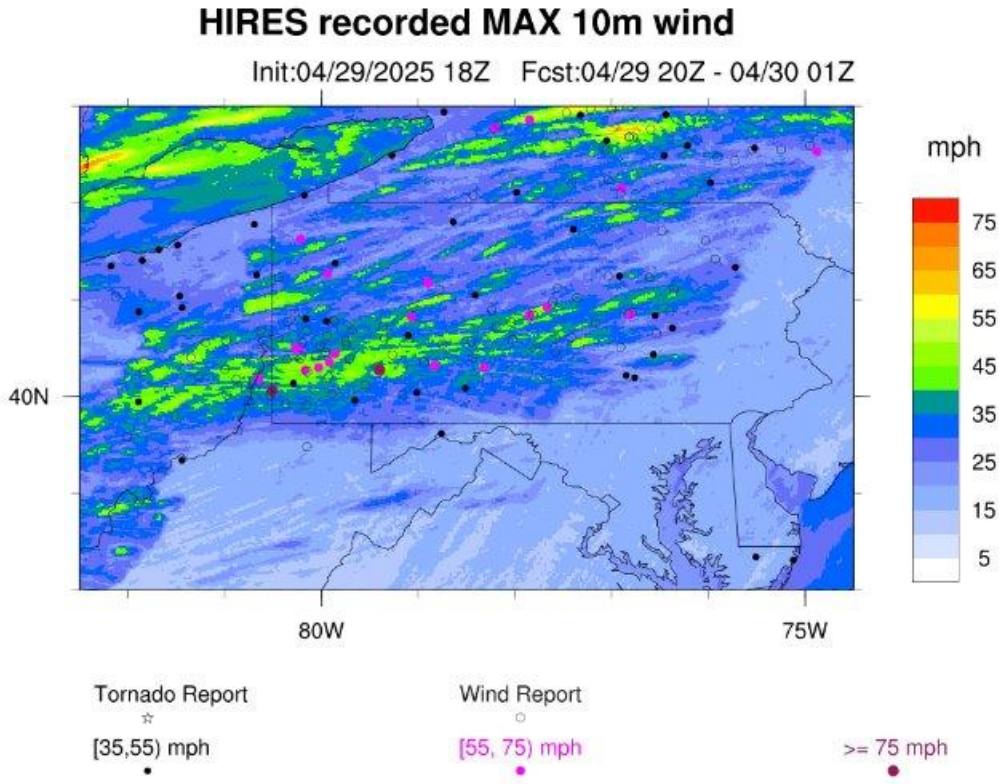

Public Model

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Climavision Model

Climavision

CASE STUDY

Thank you

CLIMAVISION.COM

CONTACT
Tara Leigh Goode, VP, Strategic Partnerships and Radar Operations
Tara.goode@climavision.com

Climavision
RADAR AS A SERVICE

PENNSYLVANIA

We Didn't See It Coming.

The Problem: Weather Gaps

Radar gaps impact us all. While we have a federally owned and operated backbone weather radar network in the US, NEXRAD, it does not provide **complete** and **equitable** coverage in the lower levels of the atmosphere, leaving people and property vulnerable to volatile weather that seemingly pops up out of nowhere. In many cases, people don't even know what's coming until they're feeling the impacts. This problem is known as a "weather gap."

Weather gaps are nothing more than a physics problem. The earth is curved and radars operate at a slight tilt, so the further you are from a NEXRAD radar, the higher it is looking over your head. Without new observations, radar data for these areas is from thousands of feet above the ground - meaning forecasters, meteorologists, public servants, and residents don't see the full weather picture and can't prepare quickly or accurately.

Weather gaps disproportionately impact rural populations, businesses, and diverse and vulnerable populations such as senior citizens and low-moderate income families. Shockingly, over 130-million Americans live in a low-level weather gap, 4 million of which live in Pennsylvania.

The only solution for weather gaps is to install new weather radars to observe low levels. Speed, cost, and expertise have been the main roadblocks for accelerating gap-filling sensors.

Fast, Affordable, Comprehensive Solution

We've got a sense of urgency and we're on a mission to fill every gap in the country with a strategically placed supplemental weather radar - about 200 radars to be exact. These radars will supplement the backbone network and provide real-time, needed observations so that there is full visibility into weather patterns from the ground up - from coast to coast - and beyond.

STATE STATS

>$1B Loss

As of November 1, 2024, there were 24 confirmed weather/climate disaster events with losses over $1 billion each in the United States. These events included 17 severe storms, 4 tropical cyclones, 1 wildfire, and 2 winter storms. These events resulted in 418 deaths and significant economic impacts to impacted areas.[1]

>130M Americans in Radar Gap

An estimated 130-million Americans live directly in a low-level radar coverage gap. Many of these gaps impact rural, underserved, and vulnerable populations.[2]

>$35M Property Damage

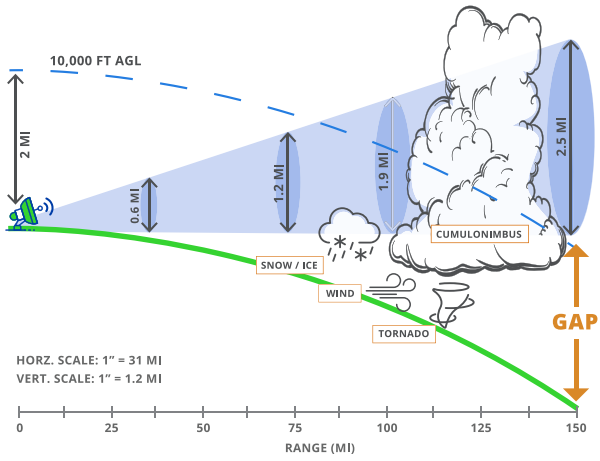
Between 2022-2023, Pennsylvania had over 35 million in property damage due to severe weather.[3]

>4M in Low-level Gaps

Over 4 million Pennsylvanians now live in a low-level weather gap and are vulnerable to undetected severe weather.[4]

1. National Center for Environmental Information.
2. US Census Data 2020. 3. NCEI. 4. US Census Data 2020.

Why Radar Coverage Gaps Exist



Climavision

Our Business Model

Ad hoc or one-off solutions often fail because of ownership, expertise, and funding challenges. We take these burdens on - ownership, installation, maintenance, scientific quality controls, and integration with federal partners - so that users only worry about one thing - getting the data they need to respond to incoming weather fast.

Much like a software subscription, we provide users a data feed in their preferred platform or one of ours, through Radar-as-a-Service - which provides the benefits of a weather radar, at a fraction of the cost.

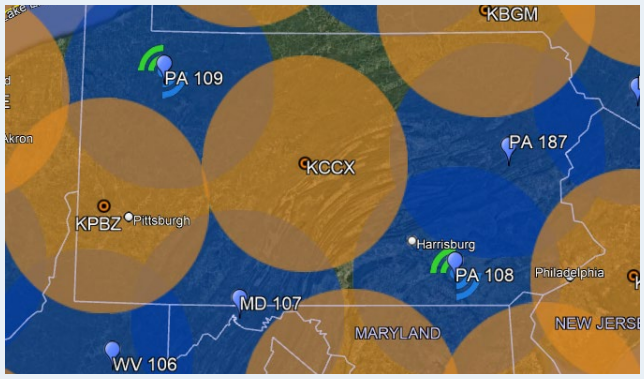
Pennsylvania Investment

We're installing up to 4 radars in the state of Pennsylvania, two of which are already operational and represent Phase 1 of the state network rollout. These radars are located in Millersville and Pleasantville. The remaining 2 radars will be deployed as Phase 2 by the start of FY27 – near Luzerne and Bedford Co. Each radar covers a 60-mile range, operates 24/7, and can be integrated into existing dashboards for key agencies, such as PEMA, PennDOT, PDA, PDEP and county or city operations. The data can also be displayed as a MOSAIC on a public website.

Federal Collaboration

Climavision is working closely in partnership with NOAA and its sub-agencies, including the National Severe Storms Laboratory (NSSL) and the National Weather Service (NWS) to improve lead times and accuracy in forecasting and to fill low-level gaps in observations for better insight into weather close to the ground. NOAA has recognized the supplemental network as an integral input to the future network. The data has undergone rigorous evaluation through a cooperative research and development agreement (CRADA) with NSSL, which has just been extended for another 5 years. Data has also been operationalized to dozens of NWS Weather Forecasting Offices (WFO's) and **has been used to issue critical, life and property saving warnings and alerts**. Just like the federal government, states can purchase data rather than weather infrastructure for a fraction of the cost.

Filling Radar Data Gaps in Pennsylvania



Circle represents coverage below 4000ft

NEXRAD coverage Climavision coverage

Pennsylvania State Access Structure

Authorized Access

- **Up to 4 state agencies - more can be added on request** (EMA, Transportation, Ag, Air Quality, Water, Conservation)
- **All state and local public safety officials** (Local county emergency managers, PSAPs, Sheriff's offices, storm spotters)

*NWS integration handled separately through National Mesonet Program

Integration Options

- **GIS Dashboards** (i.e., ESRI, ARCGIS, etc.)
- **White label desktop and mobile application**
- **GR Analyst**
- **Custom plumbing into existing dashboards***

*3rd party vendor integration is possible, but may be subject to vendor's engineering fees.

Cost

- **Year 1: $700,000 per year subscription for access to 2 scheduled radars for up to 1,000 users and a public mosaic.**
- **Year 2, and on: $1,000,000 per year subscription for access to 4 scheduled radars for up to 1,000 users and a public mosaic.** (Radar-as-a-Service)

*Price is all in - no additional fees such as maintenance, parts, etc.

Compared to Radar Ownership

- **$3-5m capital investment per system**
- **$1m/yr ongoing maintenance, operations, expertise, parts per system**

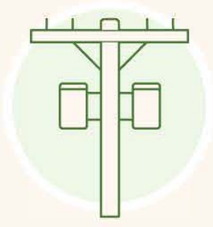
DUQUESNE LIGHT CO. STORM RESTORATION RECAP

>325,000
customers lost power
due to the April 29 storm — over half of DLC's customer base.

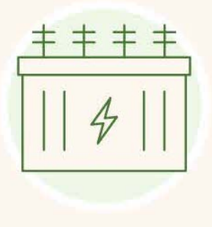
We called
600 **mutual assistance crew members**
from **5 states** to aid in restoration efforts.

Outages spanned across DLC's
812 **square-mile service territory.**

Within **8** days, crews replaced:



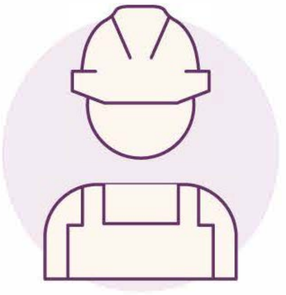
235
poles



306
transformers

80
miles of wires

In a typical storm, crews replace an average of **44 poles**, **53 transformers** and around **15 miles of wire**.



During this time, lineworkers and crews worked up to
16-hour shifts.