

Summer Preparedness

May 17, 2024

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Overview

PEC is preparing for another Texas summer and extreme weather. Staff across the cooperative are assessing conditions and the readiness of the electric grid and market, PEC's transmission and distribution systems, and potential impacts to the PEC membership.

This review will highlight:

1. Potential ERCOT Events
2. Operational Preparedness
3. Member Engagement



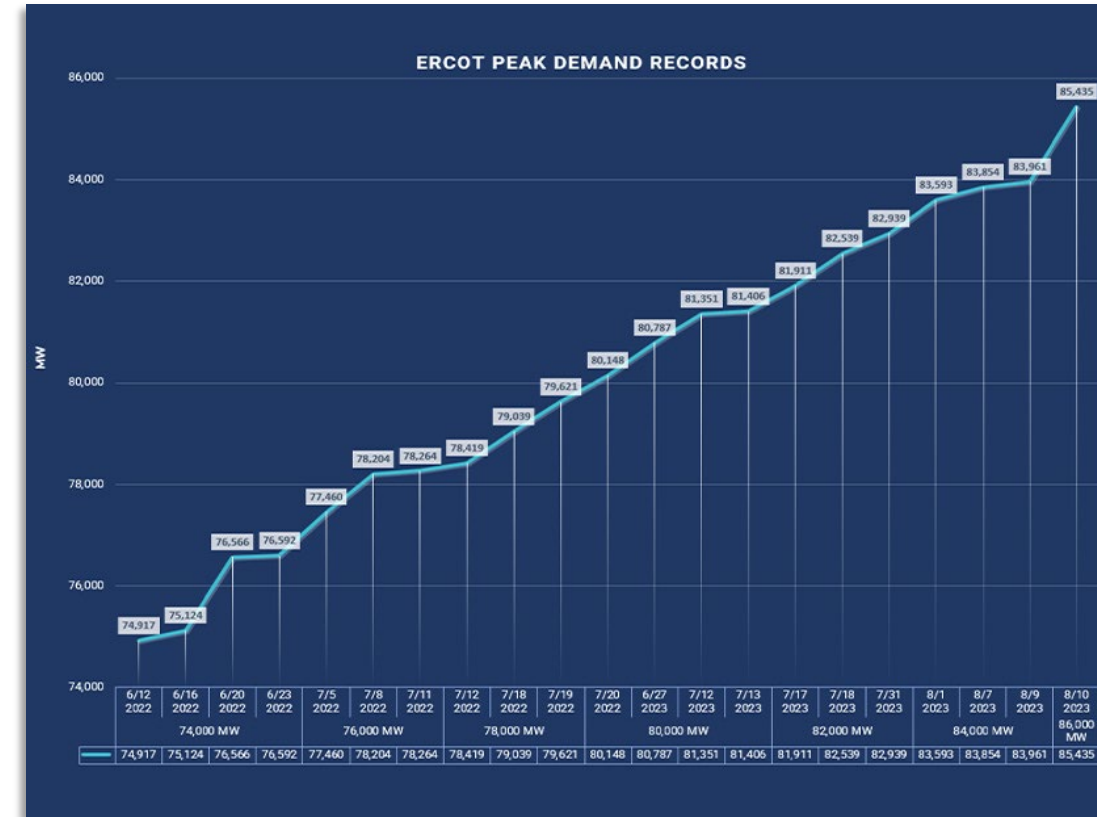
1. Potential ERCOT Events



A Look Back at Summer 2023

Demand, Conservation Calls and Actions

- 2023 was the second hottest summer in Texas and a record-setting year for demand.
- 10 all-time peaks recorded June – August.
- Aug. 10: 2023 peak, reached 85,508 MW which was 5,360 MW higher than 2022 record.
- ERCOT issued six Conservation Appeals in August and two in September.
- Sufficient resources were available to serve demand.



Grid conditions are now tightening in two timeframes; in the evenings, 6-9 p.m., as well as during peak temperature hours, 2-4 p.m.

Texas Advisory & Notification System (TXANS)

What is TXANS?

- Deliver clear and reliable information to the public about ERCOT grid conditions.
- Provide proactive updates on future weather and grid conditions where demand is forecasted to be higher, and reserves could potentially be lower.
- Inform Texans about the actions they can take to reduce energy usage to support grid reliability during periods of high demand.



ERCOT.com/txans



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TXANS - Communicating Grid Conditions

<u>Level</u>	<u>Description</u>	<u>Action</u>
ERCOT Weather Watch Normal Grid Conditions	Forecasted significant weather, high demand, and a potential for lower reserves	Monitor ERCOT grid condition updates
Voluntary Conservation	Higher demand forecasted with lower energy supply	ERCOT requests Texans to voluntarily conserve during a specific period. Government agencies reduce usage.
Conservation Appeal	Higher demand forecasted with potential to enter emergency operations due to lower reserves	ERCOT requests Texans to conserve during a specific period.
Energy Emergency Alerts (EEA)	System-wide emergency supply and demand conditions	EEA Levels 1-3, tools deployed to meet demand.

ERCOT's New Emergency Levels



Energy Emergency Alert (EEA) 1:

- Issued when operating reserves drop below **2,500 MW** and are expected to remain below that level for at least 30 minutes.
- Controlled outages have not been requested but are possible.



Energy Emergency Alert (EEA) 2:

- Issued when ERCOT's operating reserves have dropped below **2,000 MW** and are not expected to recover within 30 minutes, or if frequency drops below **59.91 Hz** for 30 minutes.



Energy Emergency Alert (EEA) 3

- Transmission operators across the ERCOT region are directed to reduce power on the grid through controlled outages, which impact all customer classes, including residential, commercial, and industrial.

PEC Critical Load Program

PEC's Critical Load registry includes over 700 sites.

Members are required to reapply for Critical Load status annually:

- As discussed at the April Board Meeting, applications were due online by May 8.
- Staff is reviewing and validating site information provided.
- Members will receive notification of Critical Load designation by May 31 to prepare for summer.
- Commercial & Industrial Account Management staff provides registry details to the Distribution Operations Communication Center who builds and manages the load shed blocks.

Critical Load Program sites cannot be guaranteed uninterrupted, regular, or continuous supply of power.

PEC Critical Load Program

Home » Critical Load Program

Critical Load Program

What it is	⊕
What it is not	⊕
Who qualifies?	⊕
Application information	⊕
How do I apply?	⊕

Critical Load Application Information

- Applications must be submitted by Wednesday, May 8, 2024.
- Applications must be submitted online; sites not submitted online will not be considered for the program.
- PEC will notify sites accepted for the program by Friday, May 31.

[REGISTER ONLINE](#)

[REGISTERED MEMBER LOGIN](#)

Contact
For more information, call 830-454-3114 or email criticalloadrequests@peci.com.



2. Operational Preparedness

Employee Safety

The Safety Team distributes multiple pieces of information from OSHA* and the NIOSH* with awareness tools for:

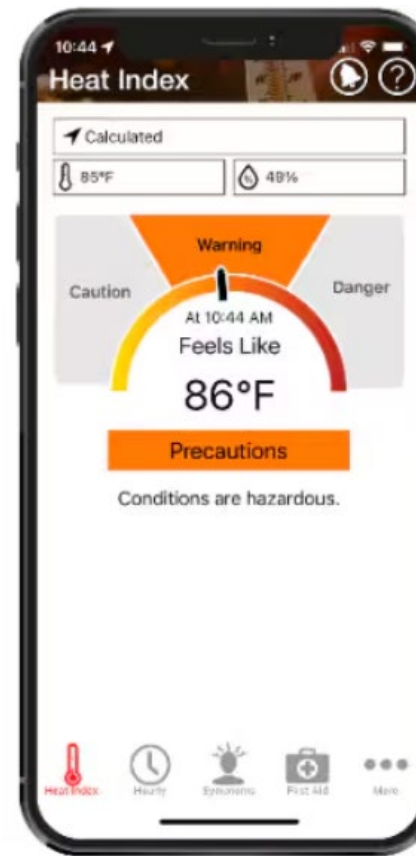
- Risk factors for heat illness
- Symptoms of heat exhaustion
- Symptoms of heat stroke
- How to prevent heat illness

The OSHA-NIOSH Heat Safety Tool App offers:

- A visual indicator of the current heat index in specific locations.
- Precautionary recommendations specific associated risk levels.
- Signs and symptoms and first aid for heat-related illnesses.

*OSHA – Occupational Safety and Health Administration

*NIOSH – National Institute for Occupational Safety and Health



Heat Safety Tool App

Beware of Heat Stress

Heat Exhaustion

Your body attempts to adapt to the heat through heavy sweating. You may become dehydrated as you lose water and electrolytes.

Symptoms

- Fatigue
- Nausea
- Headache
- Excessive thirst
- Muscle aches/cramps
- Weakness
- Sweats, clammy skin
- Slowed/weakened heartbeat
- Dizziness

Heat Stroke

MEDICAL EMERGENCY

Your body is no longer able to cool itself and your body temperature rises dangerously.

Symptoms

- Decreased sweating/urination
- Hot, flushed, or dry skin
- Rapid heart rate
- Shortness of breath
- Increased body temperature
- Confusion, agitation, seizure or loss of consciousness

Know the Symptoms!

Find a cool place

Air-cooling systems help reduce heat exposure.

Stay Hydrated

Avoid sugary, caffeinated and alcoholic drinks

Preventing Heat Stress

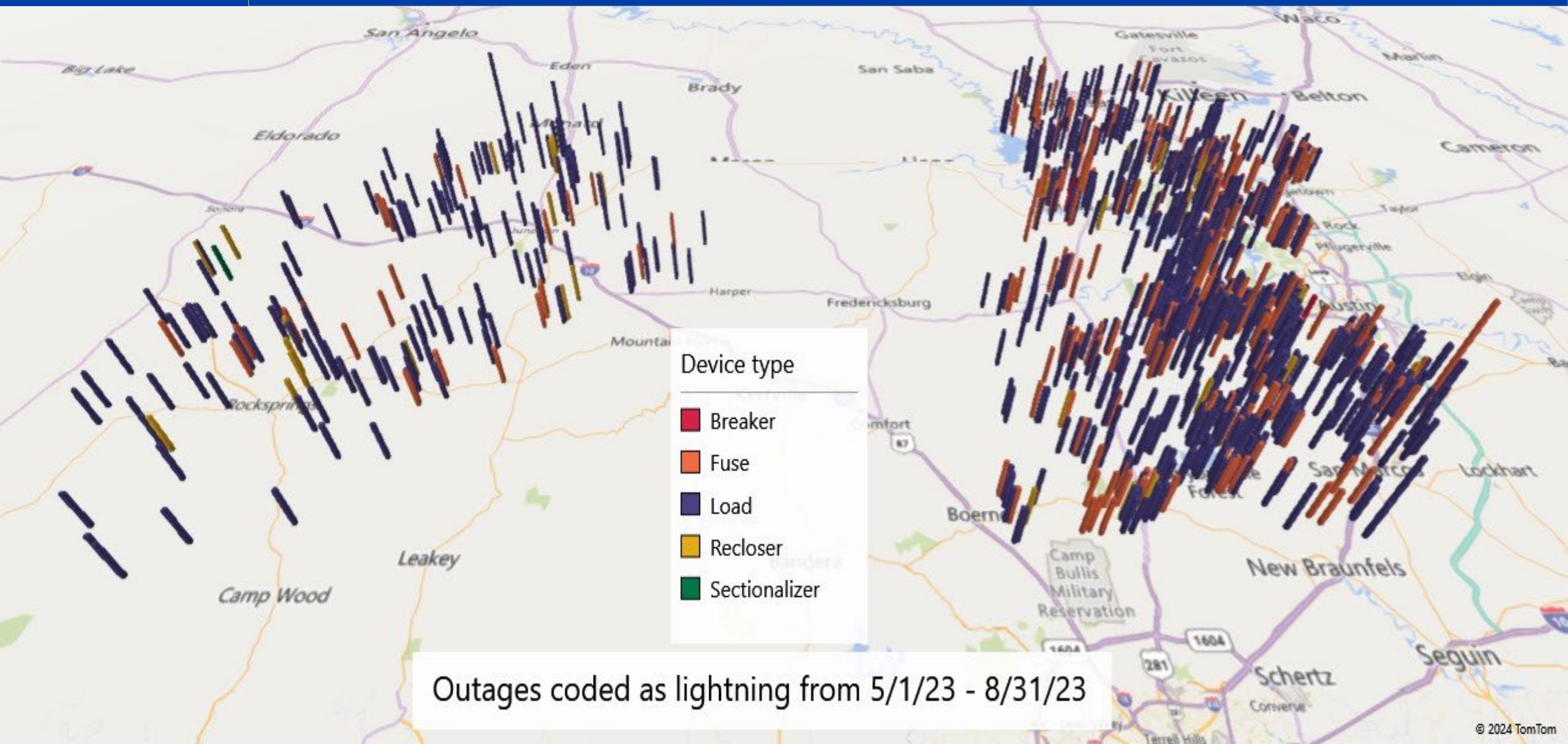
Take Frequent Breaks

Slow Down!

Your body needs time to adjust to the heat. Don't overexert yourself performing physical tasks.

Heat Safety Tool App

Summer Storms



Responding to Events

Load Shedding

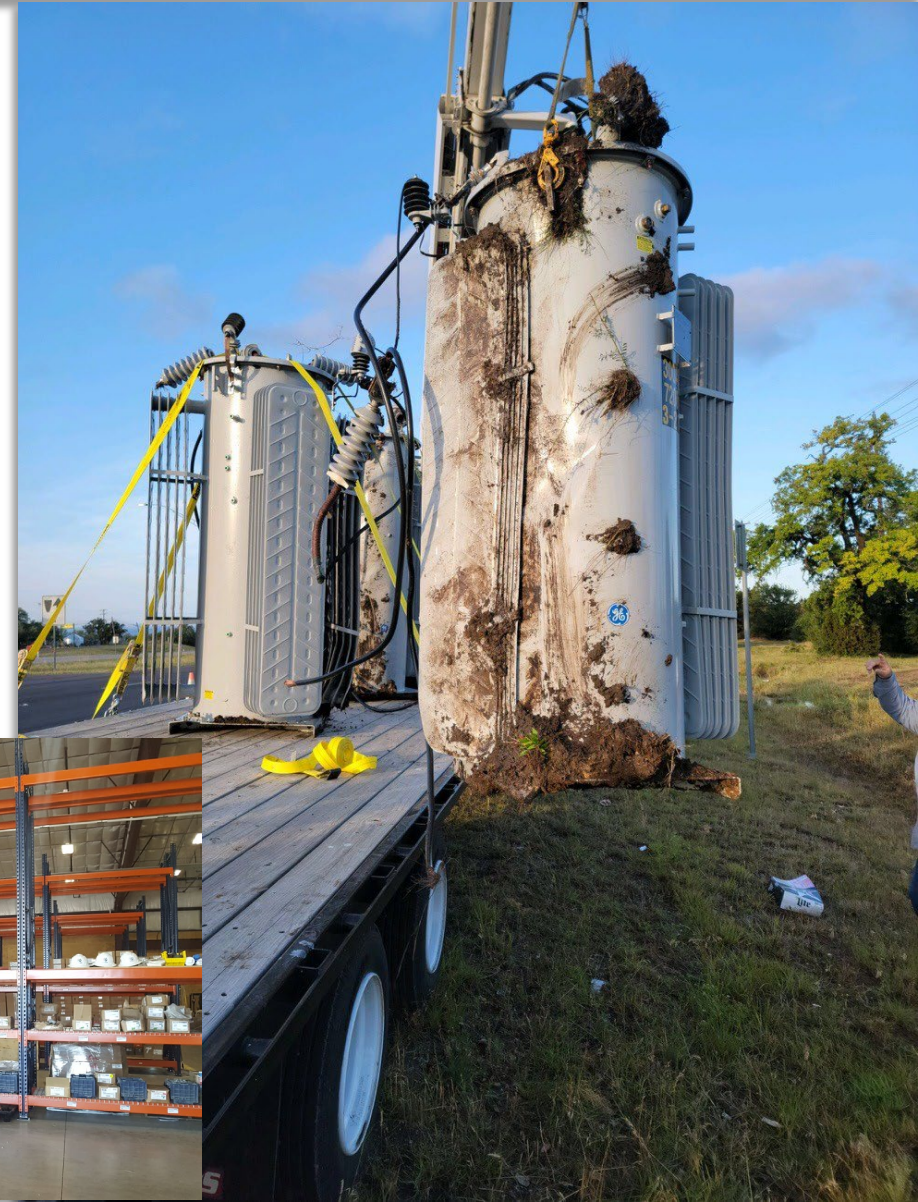
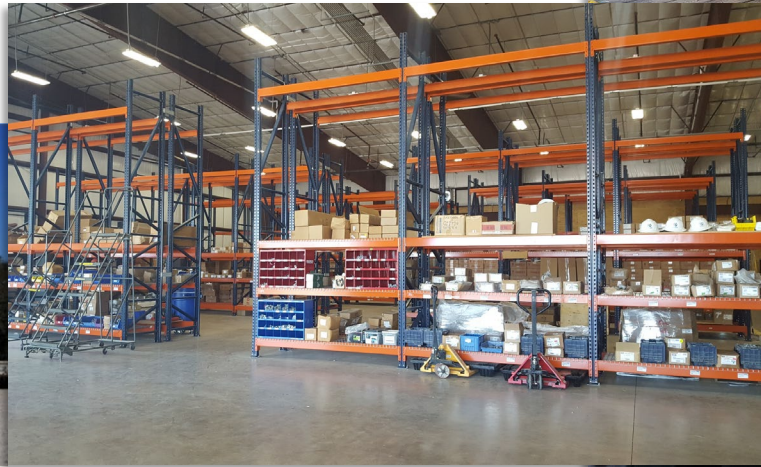
Outage response during load shed rotations require careful coordination between the field and control centers.

- Full outage restorations can be delayed during a shedding event.
- The re-activation of equipment in large volumes can cause additional inspections or repair work on equipment.
- District, Maintenance, and Technical Services crews will be staged around service territories in order to quickly respond to any issues.
- Call out and staffing plans are adjusted to support the 6 pm to 9 pm timeframe for potential rolling outages.



Managing Resources

- Equipment inventories for fuses, transformers, and regulators are maximized ahead of summer months.
- Fleet mechanics complete inspections and make vehicles ready for grueling road conditions and maintenance challenges during extreme heat.
- Facilities staff monitor HVAC equipment, prepare emergency amenities, and test back-up generators.
- Currently installing fuel islands into more district yards.



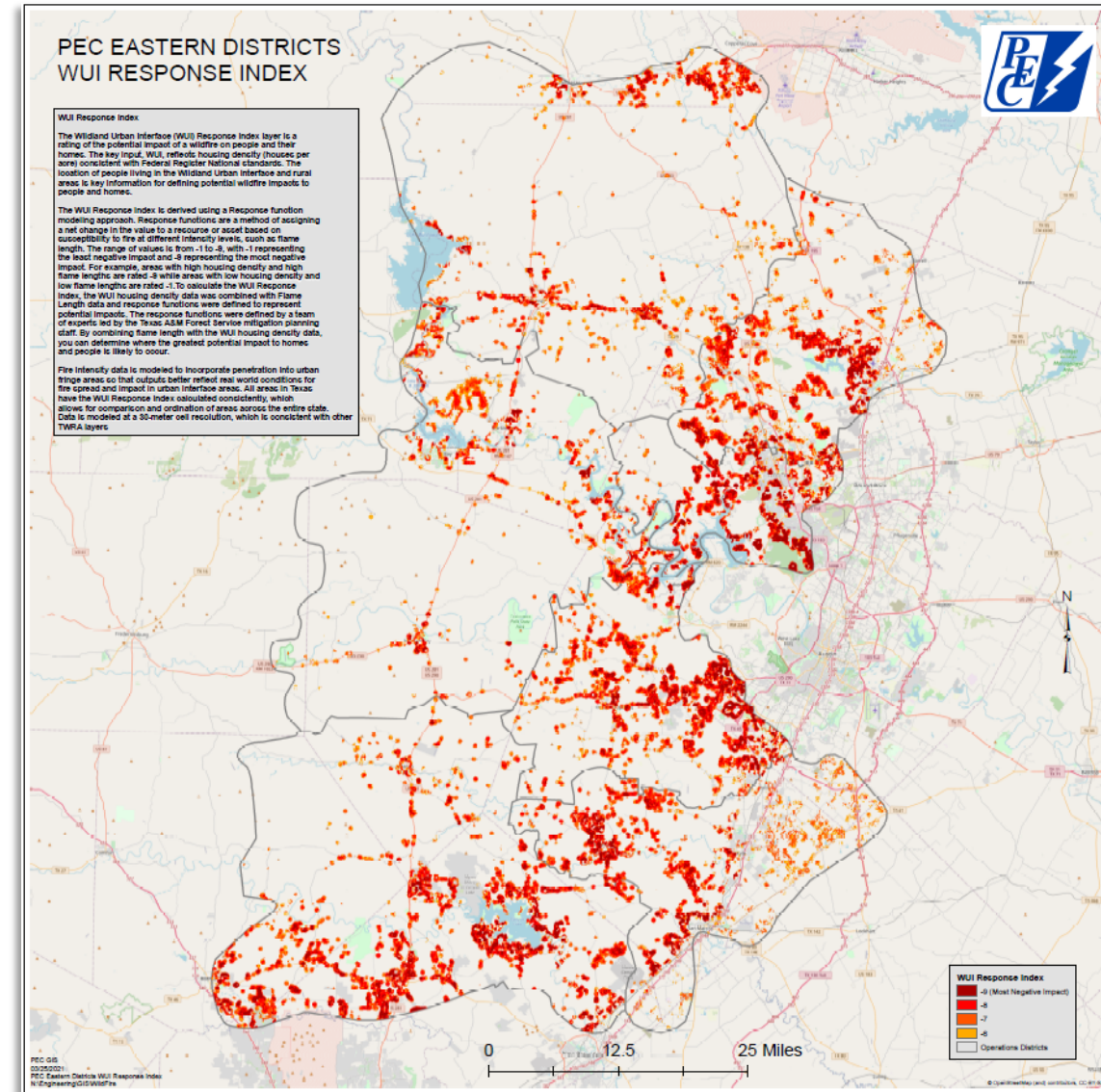
Wildfire Mitigation

Wildland Urban Interfaces (WUI):

- Areas where homes intersect with undeveloped wildland areas dense with grass, brush, and trees are known as the Wildland Urban Interface (WUI).
- According to the Texas A&M Forest Service, 90% of Texas wildfires are caused by human activity and 85% are ignited within 2 miles of a community.
- PEC's exploding growth typically encroaches upon undeveloped wildland areas.

Mitigating Risk

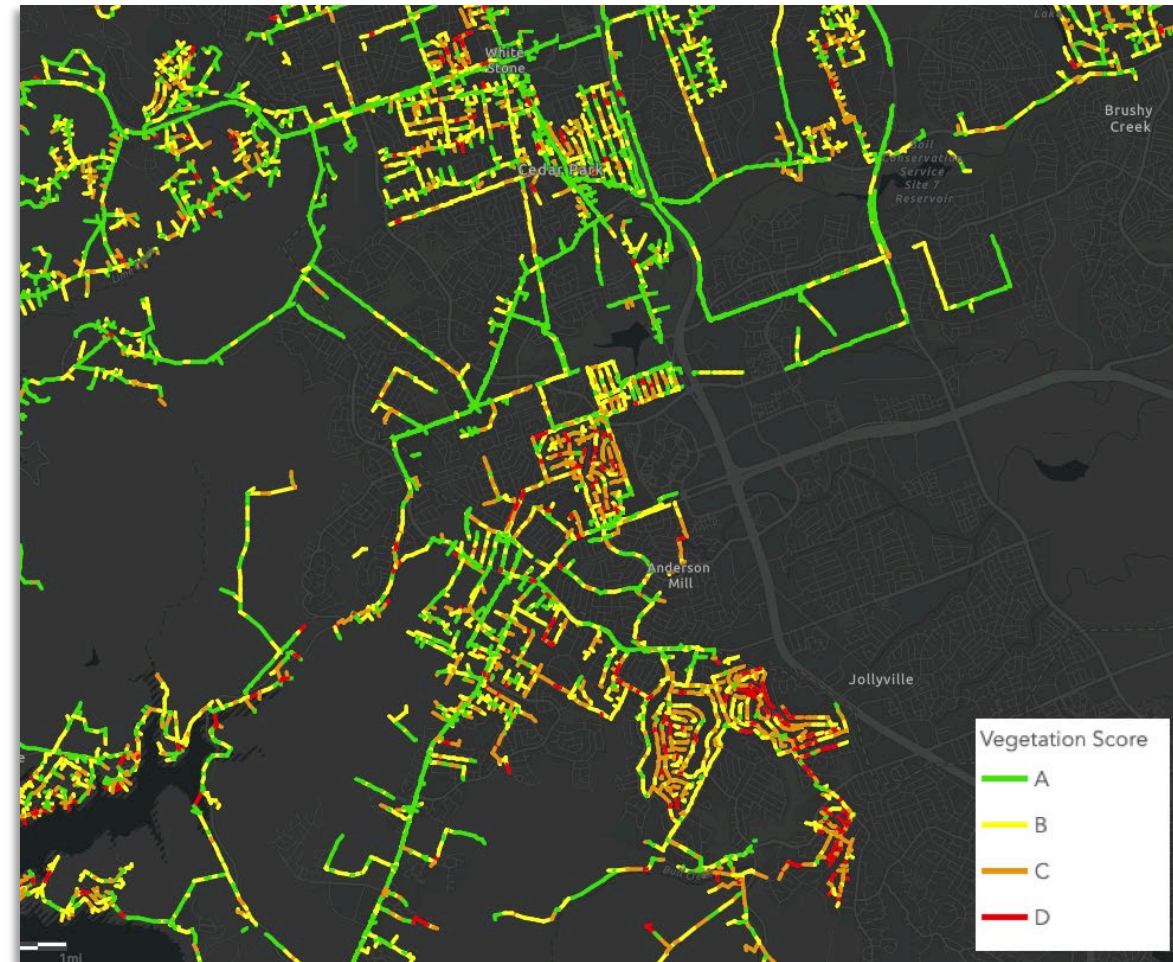
- Target priority WUI locations for vegetation management.
- Utilize dedicated pole replacement and maintenance resources.
- Apply Red Flag Warnings that disable reclosings for areas.
- Operate distribution fault anticipation technology.
- Monitor risk through PEC's Enterprise Risk Management Program. Current status of items: "Mitigate and Monitor"



Distribution Maintenance

Vegetation Maintenance – LiDAR Assessments

- In the spring of 2023, after Winter Storm Mara, PEC rescanned its territory to reassess damaged trees.
- PEC began receiving and targeting fresh location data in the fall.
- Crews have pruned over 3,000 locations per month in both March and April.
- All critical C&D-rated WUI locations are scheduled for completion by summer.



Critical Locations Completed

Type	Completions	%
C&D WUI Locations	16,197	77%
C&D All Locations	28,433	67%



3. Member Engagement

Member Communications

Awareness of grid conditions will be communicated to PEC members in several ways:

- Cascading communications are prepared for each EEA level.
- Member notifications will echo ERCOT notifications and utilize text, website, social, and phone hold-time recordings.
- RF meters should be near full deployment creating better situational awareness and notification opportunities for the Control Center and the membership.

Highest potential timeframes for load shed activity:

- Weekdays
- 6 pm to 9 pm, as wind and solar production decrease



Member Safety

While all members are responsible for paying their electric bills, PEC will not disconnect service for nonpayment during times of extreme heat or cold.

- Members encouraged to reach out to PEC if financial assistance is needed.
- Payment plans are available to avoid large swings in monthly billing.
- Prepaid payment options are available that may eliminate fees associated with reconnections.
- When members qualify, our community partners can help us match available funds to members in need, through our Member Assistance Program.



Managing High Summer Bills

Member Assistance Program

- PEC's Member Assistance Program provides qualifying PEC members a maximum of \$300 per calendar year to apply to their electric bill.
- To apply, visit www.pec.coop and search "Member Assistance" for a full list of participating agencies around our service area.

Tracking Energy Use in SmartHub

- Know what's on your bill before it's received.
- Monitor usage from your device and find ways to cut back.
- Receive notifications when energy use meets preset thresholds for alerts.



PEC's Commitment

Despite all efforts for preparedness in this demonstration, PEC members will experience power outages during extreme weather.

What PEC Can Control

PEC understands our members depend on our services and timely communication.

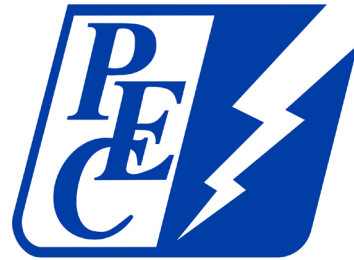
Our responsibility to the membership is also balanced with our responsibility to employee safety.

What PEC Cannot Control

Generation availability, transmission services, or equipment failure, can cause service outages of any size across the service territory.

Despite designations for critical load or medical necessity, any member's service can be disrupted.

PEC personnel will do everything possible to promptly and safely respond to the membership, as well as do everything possible to educate the membership of their need for preparedness for emergency events.



PEDERNALES ELECTRIC COOPERATIVE