## Austin Energy Services in Bee Cave

Bob Kahn, General Manager, Austin Energy

Elton Richards, Vice President, Electric System Field Operations

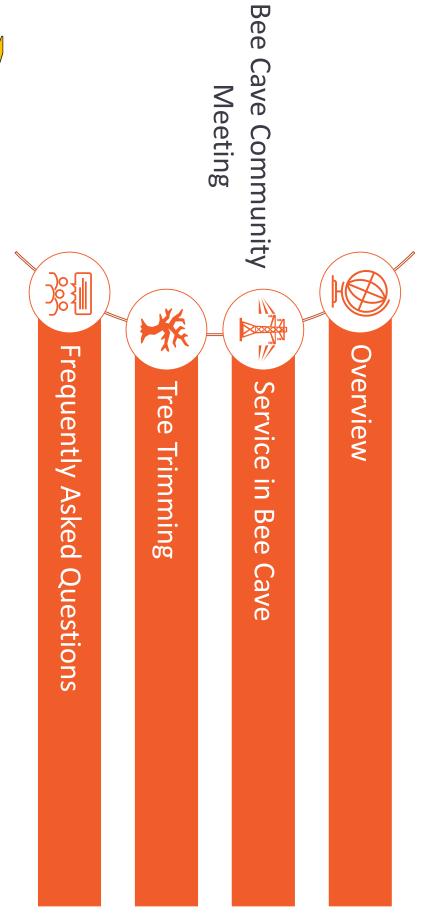




December 11, 2023

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#### Today's Agenda



AUSTIN



#### Customer Driven. Community Focused:

#### Mission

Safely deliver clean, affordable, reliable energy and excellent customer service.





#### Vision

Powering a cleaner, brighter future with customer-driven, community-focused solutions.

#### What We Do



#### **Power Generation**

Wind, Solar, Gas, Coal, Nuclear, and Biomass



#### **Transmission**

633 Miles of Transmission Lines 17 Transmission Substations



#### Distribution

~12,100 Miles of Distribution Lines 65 Distribution Substations



#### **Customer Service**

Utility Contact Center and Austin 3-1-1
Utility Billing Services
Customer Energy Solutions
Customer Assistance Programs



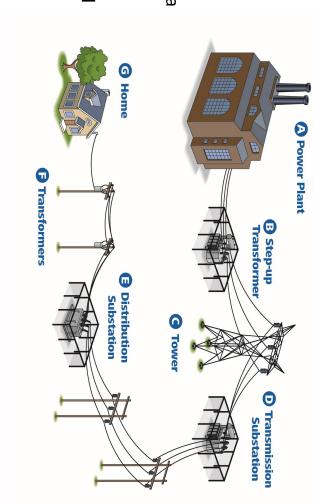
#### **District Energy and Cooling**

Chilled Water Service
On-Site Generation

## **Power Lines and Energy Distribution**

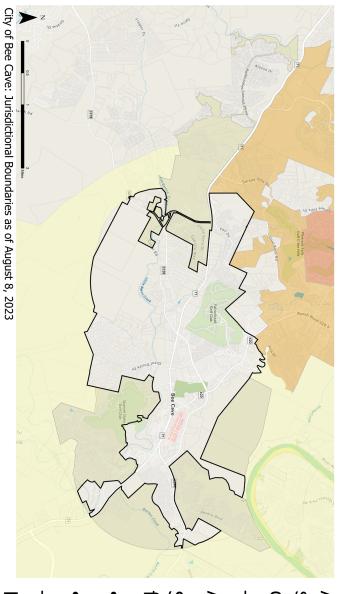
## Austin Energy delivers electricity to over half a million customers in the greater Austin area.

- Energy is distributed to homes and businesses from a distribution substation.
- Some distribution power lines are overhead, while others are underground. Neighborhood circuits have a mix of both overhead and buried power lines.
- Disturbances affecting a power line can disrupt the energy flow and cause an outage affecting some or all residents on the circuit.
- Electrical circuits do not correspond with street, neighborhood, council district or zip code. For example, immediate neighbors could be on different circuits.





## Circuits in Bee Cave, TX



Austin Energy's service territory contains 84 substations, supplying energy to 434 electric circuits.

There are  $\sim$ 5,000 miles of overhead wires on Austin Energy's distribution system.

Seven electrical circuits from two substations feed the city of Bee Cave Neighborhood.

- Trading Post Circuits 01, 02, 04, 06, 07
- Patton Lane Circuit 11

The Patton Lane (PL) substation feeds portions of Bee Cave ETJ and some eastern portions of Bee Cave City. The Trading Post (TP) substation feeds the remainder of the area.

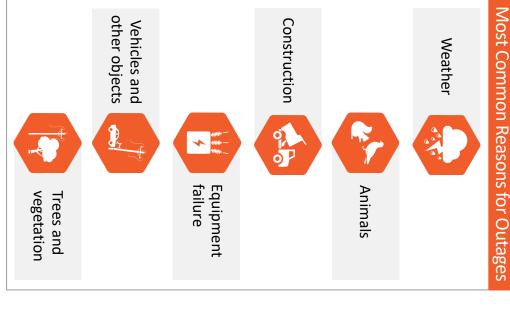


Bee Cave City Limits
Bee Cave ETJ

## Outage Data 2020 - 2023

Circuit	*Total Outage Minutes % Major Event Data (MED)	Minutes % Data (MED)	*Total Outage Minutes % (No MED)	utes % (No MED)
	78% Weather	~0.5% Interference	95% Equipment	1% Interference
TP01	14% Equipment	~0.5% Animal	2% Weather	1% Animal
	7% Vegetation		1% Vegetation	
	96% Weather	<1.0% Interference	90% Equipment	0.5% Interference
TP02	3% Equipment	<1.0% Animal	7.5% Weather	
	<1% Vegetation		2% Animal	
	98% Weather	<1.0% Interference	40% Equipment	2% Animal
TP04	<1% Vegetation		34% Vegetation	
	<1% Equipment		24% Weather	
	66% Weather		99% Equipment	
TP06	~33% Equipment		<1% Weather	
	~1% Animal		<1% Animals	

## \*This data applies across the entire circuit. Individual home outage percentages vary.





## Outage Data 2020 - 2023

	PL11			TP08			TP07		Circuit
23% Interference	30% Weather	45% Equipment	1% Vegetation	1% Equipment	97% Weather	<1% Animal	6% Equipment	93% Weather	*Total Outage
	1% Animal	1% Vegetation			1% Animal		~0.5% Animal	~0.5% Interference	*Total Outage Minutes % (MED)
3% Weather	33% Interference	63% Equipment	1% Vegetation	32% Equipment	67% Animal	6% Animal	40% Weather	53% Equipment	*Total Outage Minutes % (No MED)
	1% Animal	1% Vegetation						1% Interference	rtes % (No MED)

### Weather Weather Animals





Equipment failure







# **Austin Energy Tree Trimming Cycles and Practices**

#### **Tree Trimming Factors**

- Tree species and time of year.
- Oak wilt: tree trimming restrictions February June.
- Bird habitat: no trimming allowed March August.
- Circuit: trees trimmed from beginning to end of a circuit on maintenance schedules.
- Customer requests: trees trimmed along a section or area identified in a customer request.

#### Standard Clearances

- Fast-growing species: 15 feet (Ligustrum, China Berry, Hackberry, Pecan).
- Slow-growing species: 10 feet (Cedar, Cedar Elm, Juniper, Live Oak).

#### By the Numbers

- Trimming cycle involves planning work along 2,400+ miles.
- Hundreds of miles of power lines are scheduled for tree trimming or removal on 9,000 – 12,000 properties each year.







Three contractors help with tree trimming across the service area:

Asplundh, Davey Tree and Wright.

# **Current Tree Trimming Notification Process**

## Neighborhood Association and HOA process

- Certified letter or email is sent 10 days prior to individual property notification.
- Two weeks after, the tree trimming work plan is prepared at each property.
- Affected trees are marked with ribbons: green (trimming) or pink (removal).

### If a property owner is not home

- Tree trimming work plan is left on a door hanger
- Includes a callback number to schedule a return visit
- Crews will commence work if customer does not respond to the vegetation work plan.

## If we do not hear back from the property owner for tree removals

- Non-contact process begins if customer is not reached after a reasonable effort.
- One property visit, unless vacant or otherwise specified by Austin Energy.
- At least one phone attempt after 6 p.m.
- If no response, trees will only be trimmed on the vegetation work plan

## If a homeowner refuses trimming

A certified letter is sent detailing the work plan and the work is performed





#### SORRY WE MISSED YOU

We will be in your neighborhood soon to prune and/ or remove trees on your property which are too close to the distribution electric lines and equipment.

contractors with special training to prune and remove trees from the sower lines. This service is provided free of charge to our customers and can only be performed by qualified line clearance workers.

tached that outlines the proposed work. All tree work will v. completed to professional arboriculture standards and stin Energy line clearance specifications and the work will be viewed by a professional from Austin Energy's forestry section

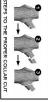
#### YOUR OPTIONS AS AN AUSTIN ENERGY CUSTOMER

- osed tree work

- un may requise an on-site meeting with an Austin Energy employee officials the proposed free work. Usu may have a third party present during these meetings, un may requise modifications to the proposed tree work. the proposed plan calls for tree semonals on your property, the proposed plan calls for tree semonals on your property.

- you may request that trees not be removed. 
  You may request to be present when the tree work is performed. 
  You will receive a written work plan documenting the proposed work 
  you property, if one is not attached. may request pricing on electric system modifications to minimize duce tree work.
- ou may request a replacement tree. For more information, visit our Neb site at **austinenergy.com/go/trees**.

equipment if you have any questions, please call the number in the top right corner between 7:30 AM – 3:30 PM, Monday through Friday.





## Summary of Tree Trimming in 2024 & Future Years

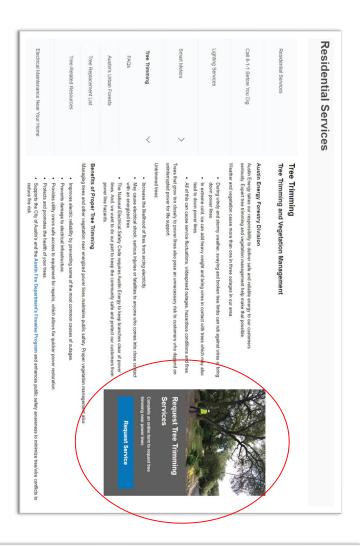
- TP01- Planning scheduled: 3<sup>RD</sup> QTR/2025
- TP02- Planning scheduled: 4<sup>TH</sup> QTR/2025
- TP04- Planning scheduled: 2<sup>ND</sup> QTR/2025
- TP06- Planning scheduled: 4<sup>TH</sup> QTR/2024
- TP07- Planning scheduled: 4<sup>TH</sup> QTR/2025
- TP08- Planning scheduled: 3<sup>RD</sup> QTR/2024
- PL11- Planning scheduled: 4<sup>TH</sup> QTR/2024

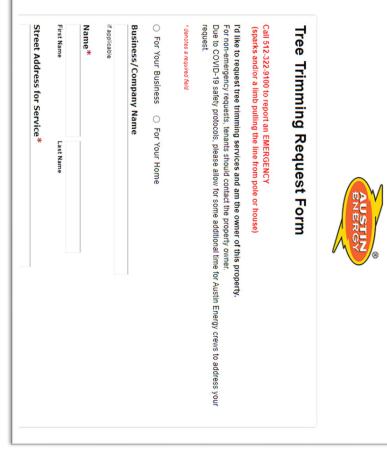
## Oak Wilt and Bird Habitat Restrictions

- Oak wilt: tree trimming restrictions February – June
- Bird habitat: no trimming allowed March – August



## Tree Trimming Requests







#### What Can I Do?

- Sign up to receive Outage Alerts by texting **REGISTER** (or **REG**) to 287846.
- Sign-up for Emergency Warnings WarnCentralTexas.org
- of-hearing residents) <u>atc.ahasalerts.com/register.aspx</u> Register for Accessible Hazard Alert System (for deaf, blind or hard-
- Get Prepared <u>ReadyCentralTexas.org</u>
- UtilityForestry@austinenergy.com Report trees near power lines by calling 3-1-1 or emailing
- Report a downed power line by calling 512-322-9100, if sparking call
- Customer Assistance Programs <u>AustinBillHelp.com</u>
- time to complete Please be patient with our crews – this is dangerous work and takes









## Customer Driven. Community Focused.™





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#### Winter Storm Uri



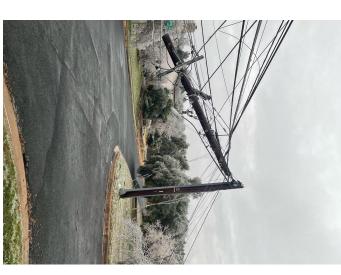


An ERCOT grid emergency.

to meet customer demand. Insufficient power generation

the ERCOT grid. order to prevent a collapse of down power to customers in **ERCOT** directed utilities to shut

**ERCOT** permission. Restoration depended on



### Winter Storm Mara

amount of freezing rain and ice accumulation. A natural disaster with a record

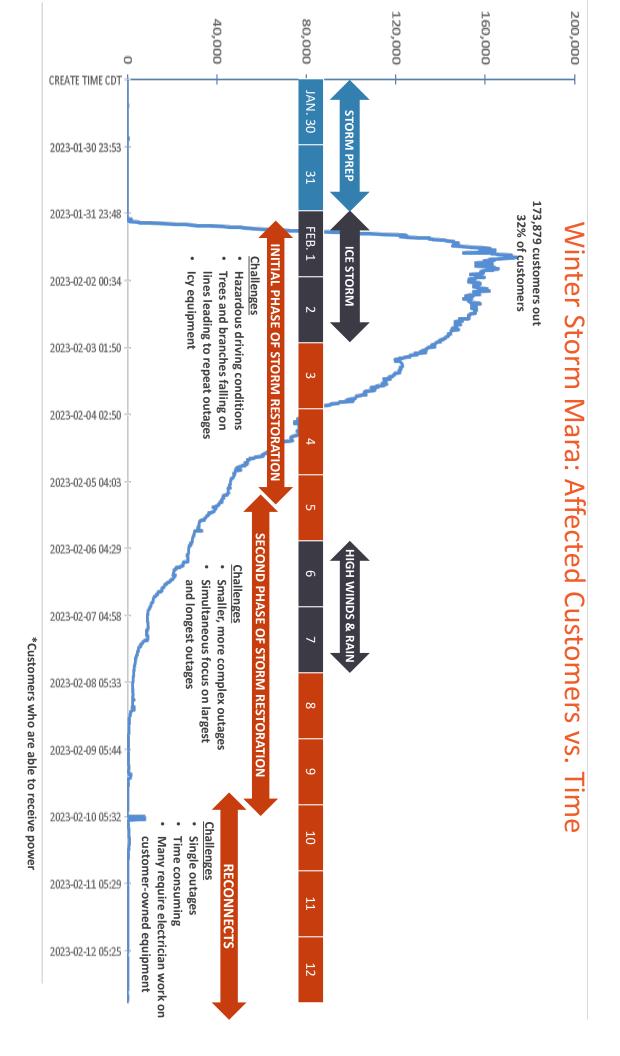
causing additional damage. wires, and poles to sag or snap communications infrastructure Ice caused trees, limbs

Hurricane level damage

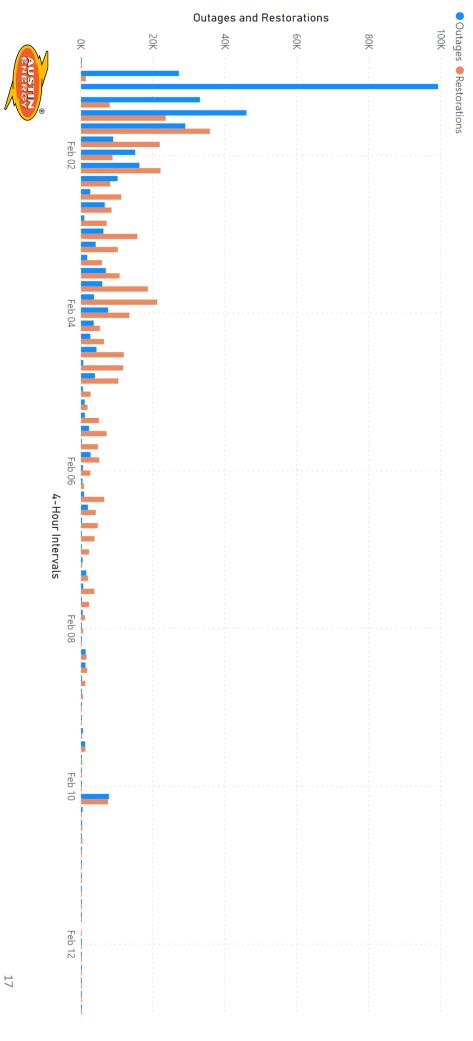
Power restoration efforts were rebuilding these lines. labor intensive and required



In both winter storms, a large number of customers experienced power outages for days at a time



Restoration Challenges: Repeated Outages on Restored Lines Austin Energy Customer 4-Hour Interval Outages/Restorations





## Restoration Challenges





## Restoration Challenges



# Restoration Challenges: Smaller, More Complex Restoration Process











# Restoration Challenges Damage to customer-owned or maintained equipment



