Outage Map

Greg Flay

Vice President, Technology and Data





Key Customer Questions

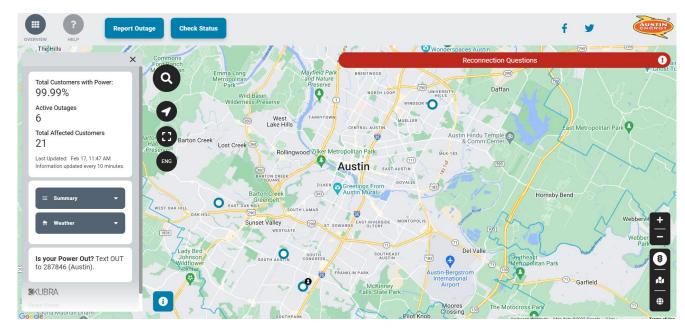
- 1. Does Austin Energy know that my power is off?
- 2. When will my power be restored?

How Does the Outage Map Receive Information?



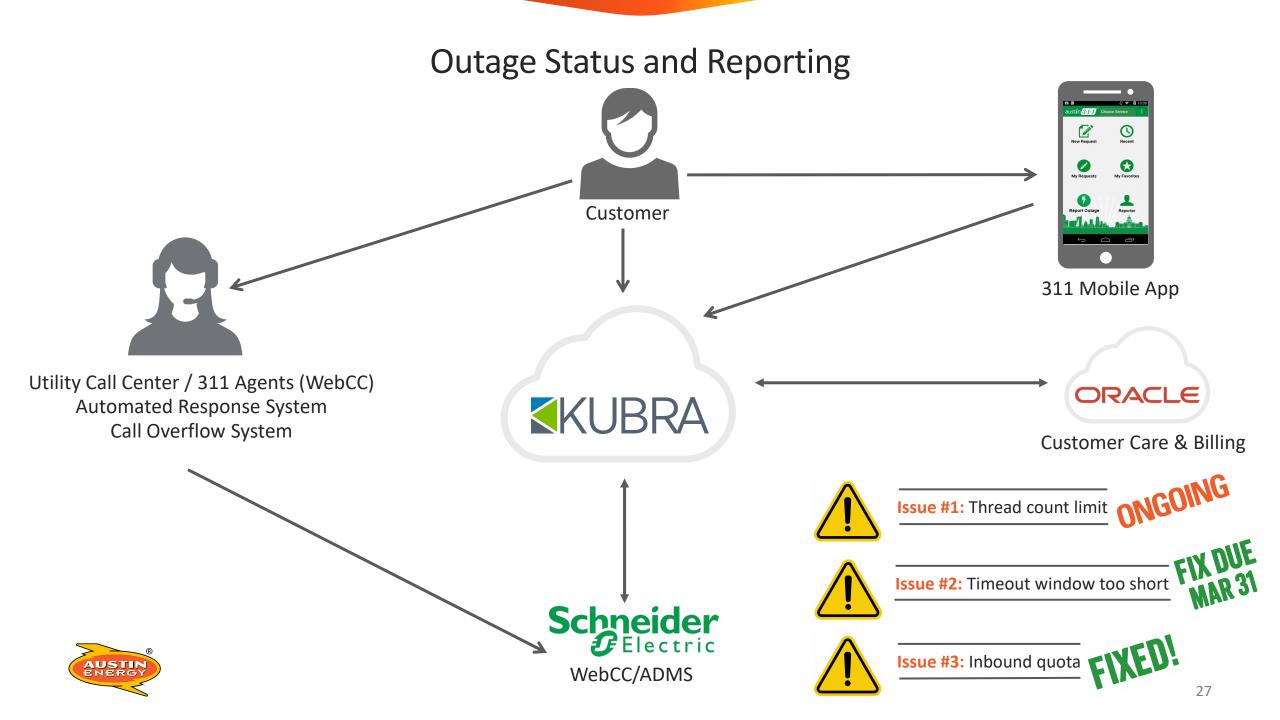


Additional Insight



- For larger outages, KUBRA has logic to place the icon close to the middle of that area.
- We do not show outages at an **individual house level** on the map for security reasons.
- Customers may be part of a "nested outage" when a large issue is fixed, but a different issue closer to the home is causing an outage.
- Estimated times of restoration (ETRs) are **suspended** during "storm mode", so they do not appear on the map.
- In the past, we've represented large outages as **polygons** but have removed these based on customer feedback.
- We hide the legend by default as it hides other map information.







Current KUBRA Outage Map Clients



Mutual Aid

Lisa Martin

Vice President, Electric System Engineering and Technical Services



Mutual Aid History



Photo: CenterPoint Energy, one of seven supporting entities, ready to deploy resources to help Austin Energy restore power.



Mutual Aid Efforts for Winter Storm Mara



Types of Mutual Aid

Utility crews – often established through industry groups, utilities provide qualified personnel and supplemental equipment

Contract crews – Independent companies, not tied to any one electric system





By the Numbers

New Braunfels Utilities – 7 personnel Renegade – 16 personnel CenterPoint Energy – 70 personnel Bird Electric – 59 personnel CPS Energy – 48 personnel MP Technologies – 40 personnel Tempest Energy – 205 personnel



Service Center

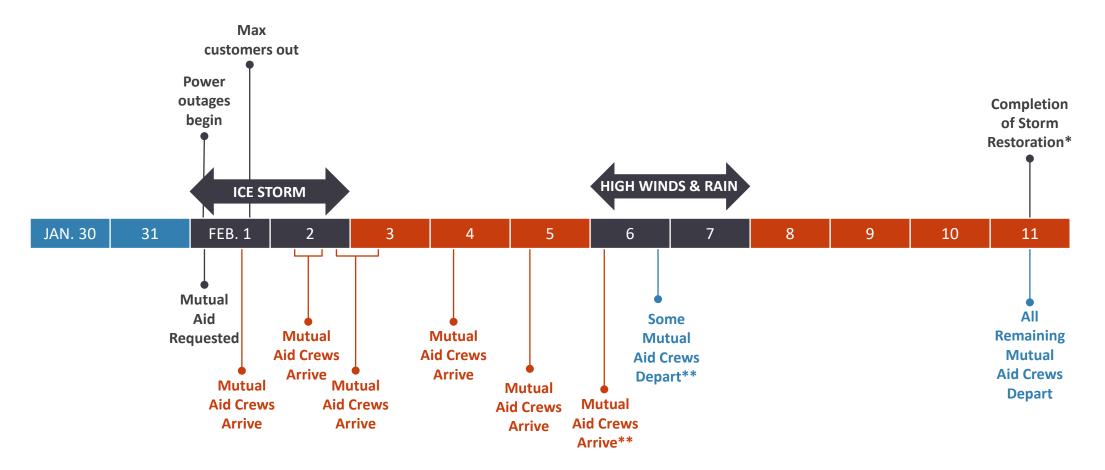
Leveraging outside crews requires space for daily briefings, heavy equipment staging, and other logistical needs

TxDOT provided a facility for mutual aid staging grounds



Mutual Aid Timeline

Austin Energy requested support as soon as outages began





*For customers who are able to safely receive power

**Increased contract company personnel when utility personnel needed to return to their home utility in anticipation of Feb. 7 weather







After-Action Report

Lisa Martin

Vice President, Electric System Engineering and Technical Services



After-Action Review

Goals & Objectives

- Understand Austin Energy's actions as it relates to the winter storm event
- Identify the factors that contributed to process breakdowns
- Identify effective strategies for responding to similar incidents in the future





Additional response areas and AE workgroups not listed here will be included in the After-Action Review



After-Action Review Approach

Plan	Discover	Analyze	Improve	Report
 Plan report process Identify personnel involved in the event Define report teams 	 Define incident timeline Identify what went well and what did not go well 	 Address critical questions Identify root causes of major findings Analyze Winter Storm Uri vs Winter Storm Mara events 	 Identify solutions Create implementation plan 	1. Publish report







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