

# Austin Energy FY2022 Q3 Operations Update

August 2022

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# Agenda

## Quarterly Operations Update



Executive Summary



Reliability Performance



Environmental Performance



Grid Resilience Strategic Goal

# Executive Summary



## **Generator availability on-target**

For the quarter, resources mostly met availability targets, except where FPP outages were experienced.



## **Reliability performance stable**

Performance over the longer term is trending statistically consistent with top quartile industry benchmarks.



## **Renewable production on-target**

For the quarter, aggregate renewable production as a percentage of load at 61%.



## **Carbon free production on-target**

For the month of April, 97% carbon-free generation as a percentage of load.



# Austin Energy Operations Update

## Reliability Performance



# Generator Commercial Availability & Start Success

## Commercial Availability

Generation Resource	Target Seasonal Commercial % Availability	Commercial Availability Actuals (%)	
		Q2 FY22 AVG	Q3 FY22 AVG
Decker Steam Units	95	98	-
Sand Hill Combined Cycle	95	55	100
Fayette Units	97	97	79
South Texas Project	100	100	100

Commercial Availability values reflect maintenance or refueling outages typical for this period

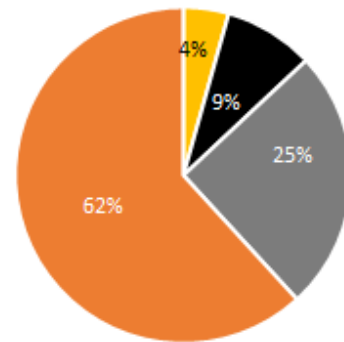
## Start Success

	Start Success Target(%)	Start Success Actuals (%)	
		Q2 FY22 AVG	Q3 FY22 AVG
Simple Cycle Start Success	99	100	100



# Net Generation and Load Analysis FY 2022 Q3

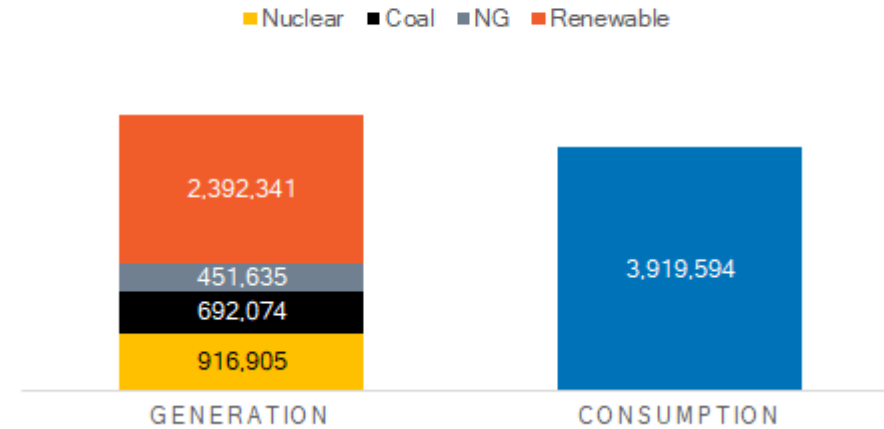
Power Generation Cost by Fuel Type



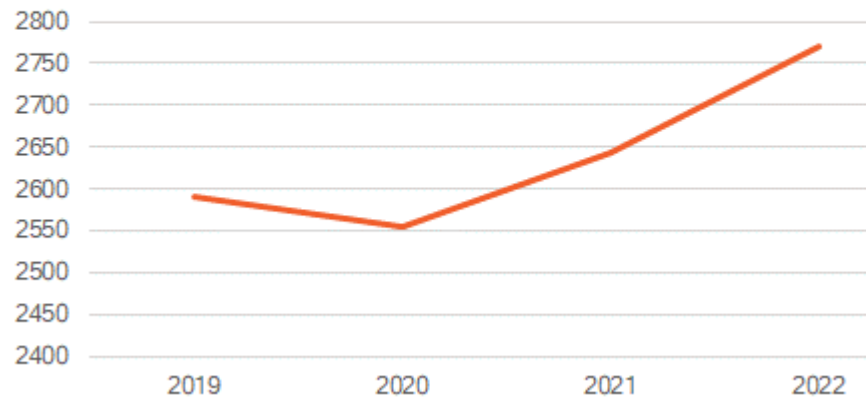
■ Nuclear ■ Coal ■ NG ■ Renewable

*\*Costs include fuel for generation, fuel transportation, renewable Power purchases agreements*

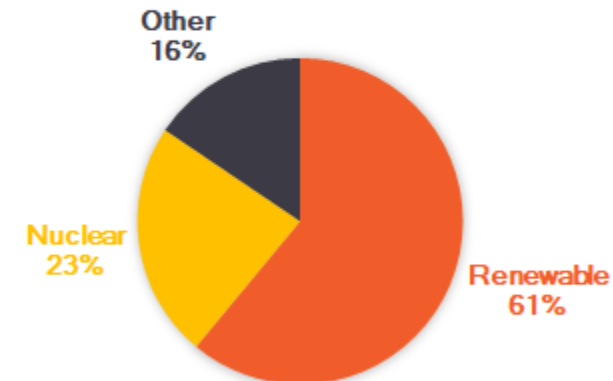
CONSUMPTION VS. GENERATION (MWH)



Historical FY22 Q3 System Peak Demand (MW)



POWER GENERATION AS PERCENT OF CONSUMPTION



# System Reliability

**CAIDI = Customer Average Interruption Duration Index**

*Average time to restore service*

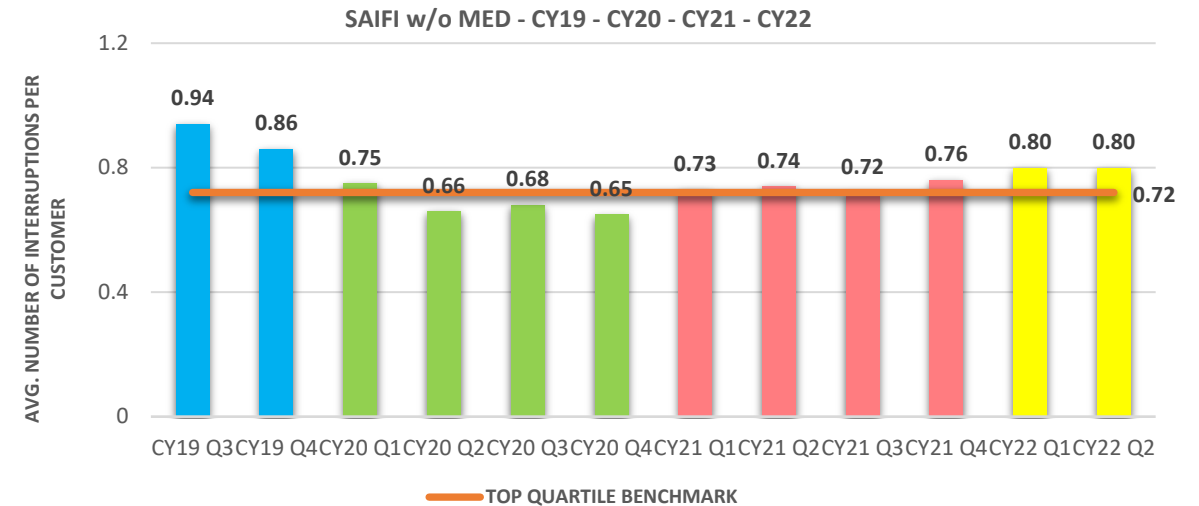
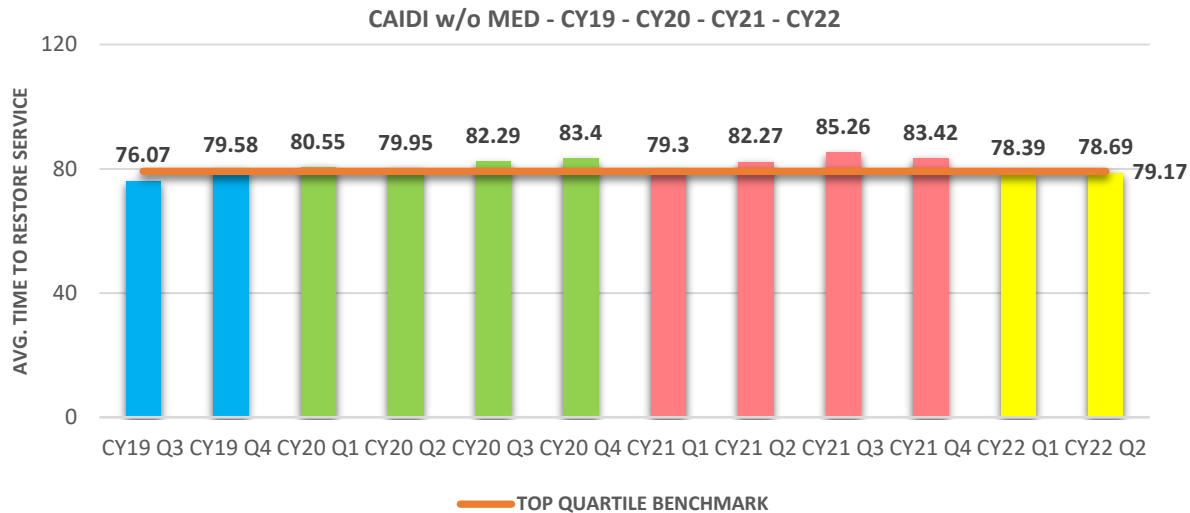
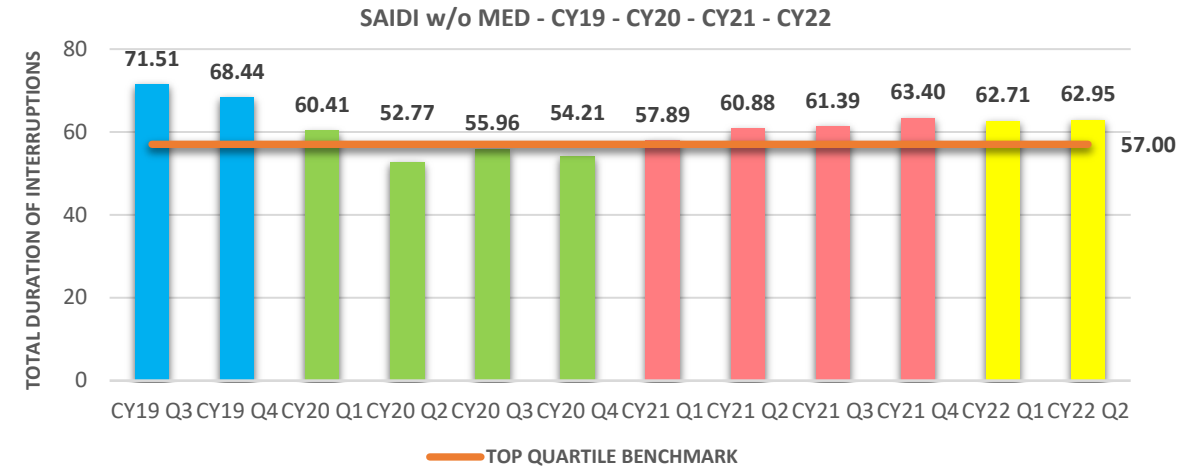
**SAIDI = System Average Interruption Duration Index**

*Total duration of interruptions for the average customer, during a period of time*

**SAIFI = System Average Interruption Frequency Index**

*How often the average customer experiences a sustain interruption, over a period of time*

**MED = Major Event Days**



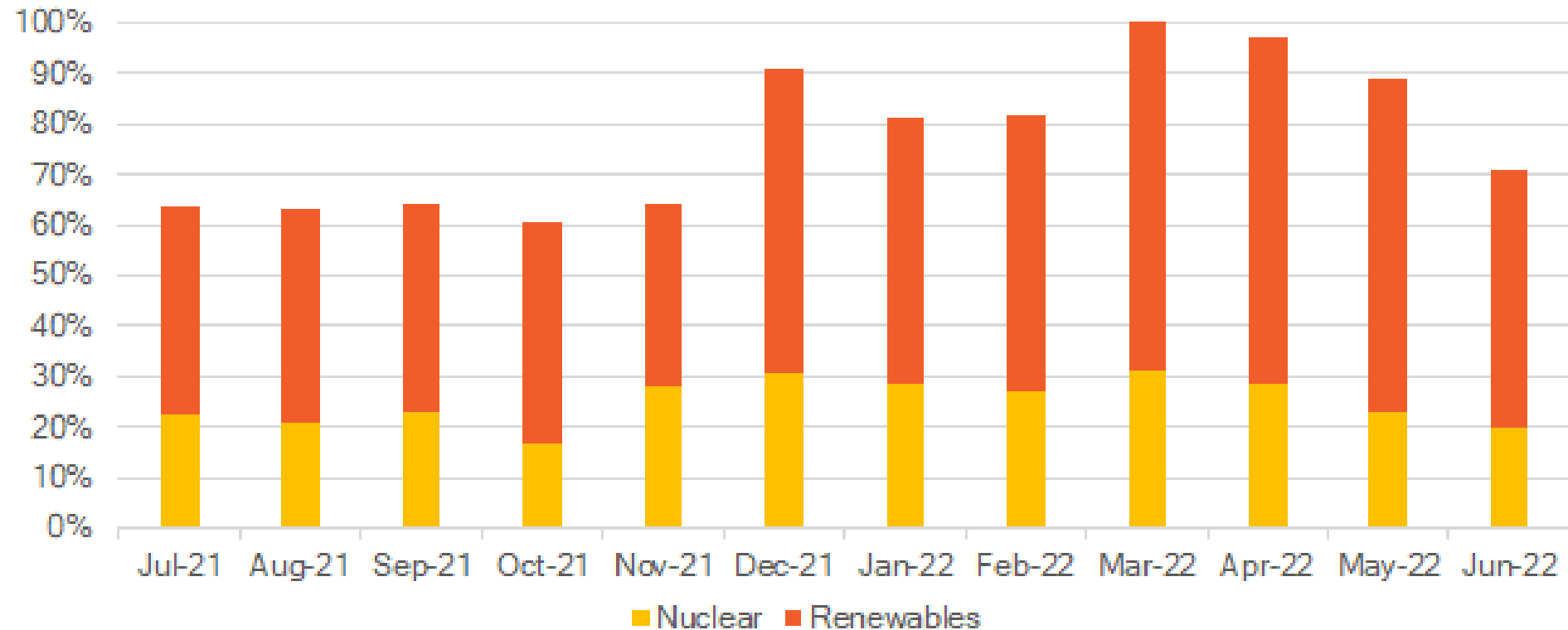
# Austin Energy Operations Update

## Environmental Performance





# Carbon-Free Generation as a Percentage of Load



# Environmental Focus

Aragorn Solar Project is now authorized to generate up to 187MW (previous limit set by PPA was 180MW) – thus 7MW increase in renewable portfolio



# Austin Energy Operations Update

## Grid Resilience Strategic Goal



# Grid Resilience Initiatives

## AE Strategic Goals 2020

### Grid Resilience



#### Improve Distribution System Reliability

Identify, Rank, and Address feeder maintenance needs in areas historically beset by outages. Identify, Rank and Address system hardening needs in areas most susceptible to wildfire risk.

**Phase I – Top 10 Feeders in both Performance and Wildfire Criticality addressed (CY/2022 - IN PROGRESS)**

**Phase II – Overall Distribution Resilience Program established, roll out (Q1/2022 – COMPLETE)**



#### Improve Substation Reliability

Evaluate substation equipment operation and address legacy equipment needs.

**Phase I – Fiskville Substation Upgrades (COMPLETE)**

**Phase II – Slow Breaker Operation – Rank and Schedule Substation Breakers for maintenance and remediation (COMPLETE)**



#### Improve Underground Network Reliability

Starts with enabling greater Visibility to our downtown network through the integration of our network model into our Advanced Distribution Management System

**Phase I – Network Modeled in ADMS – (Q3/2020) (COMPLETE)**

**Phase II – Network Primary Circuits Complete/Modeled in ADMS – (Q2/2021) (COMPLETE)**

**Phase III – Network Secondary Circuits Complete/Modeled in ADMS – (Q4/2023 IN PROGRESS)**



#### Transmission System of the Future

As part of the 2030 generation plan, Austin Energy is commissioning a Transmission system study that will investigate ways to achieve our goals set forth in the plan while compensating for the loss of generation plants.

**Phase I – Development of evaluation criteria (Q1/2021) (COMPLETE)**

**Phase II – Develop SOW for RFP release (Q2/2021) (COMPLETE)**

**Phase III – Transmission System Assessment (Q2/2023 IN PROGRESS)**



# Austin Energy Operations Update

## Hot Weather Preparedness



# ERCOT Energy Emergency Alert System

## Conservation Alerts



ERCOT may ask consumers to reduce electric use when tight operating reserves are expected.



### EEA 1

- Conservation Needed
- Operating reserves below 2,300 MW and not expected to recover w/in 30 mins

**Austin Energy  
activates Incident  
Command**

### EEA 2

- Conservation Critical
- Operating reserves below 1,750 MW and not expected to recover w/in 30 mins

### EEA 3

- Operating reserves below 1,000 MW and not expected to recover in 30 mins and/or frequency cannot be maintained
- ERCOT can mandate controlled outages\*


**\*No controlled  
outages have  
occurred in 2022**


# Conservation Appeals


ERCOT issued **conservation** notices for July 11 and 13, 2022


- Public appeals to reduce consumption
- No ERCOT directives for controlled outages
- Austin Energy called on customers to conserve energy


**HELP THE ELECTRICAL GRID**  
Conserve electricity, especially during peak hours.


 Set thermostats to 78 degrees or higher.


 Avoid using large appliances (e.g., ovens, washer/dryer).

 Use fans to feel 4-6 degrees cooler.

 Businesses should minimize lighting and electrical equipment as much as possible.

 Set pool pumps to run early morning or overnight.

 Turn off and unplug non-essential lights and appliances.



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**帮助电网**  
节约用电, 尤其在高峰时段。

**AYUDA A LA RED ELÉCTRICA**  
Conserve electricidad, especialmente durante las horas pico.

 Ajuste los termostatos a 78 grados o más.

 Use ventiladores para sentirse entre 4 y 6 grados más frío.

 Programe las bombas de la piscina para que funcionen por la mañana o por la noche.

 Apague y desenchufe las luces y los electrodomésticos que no sean esenciales.

 Evite el uso de electrodomésticos grandes (hornos, lavadoras y secadoras).

 Los negocios deben minimizar la iluminación y los equipos eléctricos tanto como sea posible.



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**مساعدة الشبكة الكهربائية**  
حافظ على الكهرباء وخاصة خلال ساعات الذروة.

**GIÚP ĐỖ LƯỚI ĐIỆN**  
Tiết kiệm điện, đặc biệt là trong khoảng thời gian cao điểm.

 تجنب استخدام الأجهزة الكبيرة (مثل الأفران، الغسالة/المجفف).

 يجب على الشركات أن تقلل من الإضاءة وتشغيل المعدات الكهربائية قدر الإمكان.

 Tránh sử dụng các thiết bị gia dụng lớn (chẳng hạn như lò nướng, máy giặt/máy sấy).

 Các doanh nghiệp nên giảm thiểu sử dụng đèn và thiết bị điện ở mức tối đa có thể.

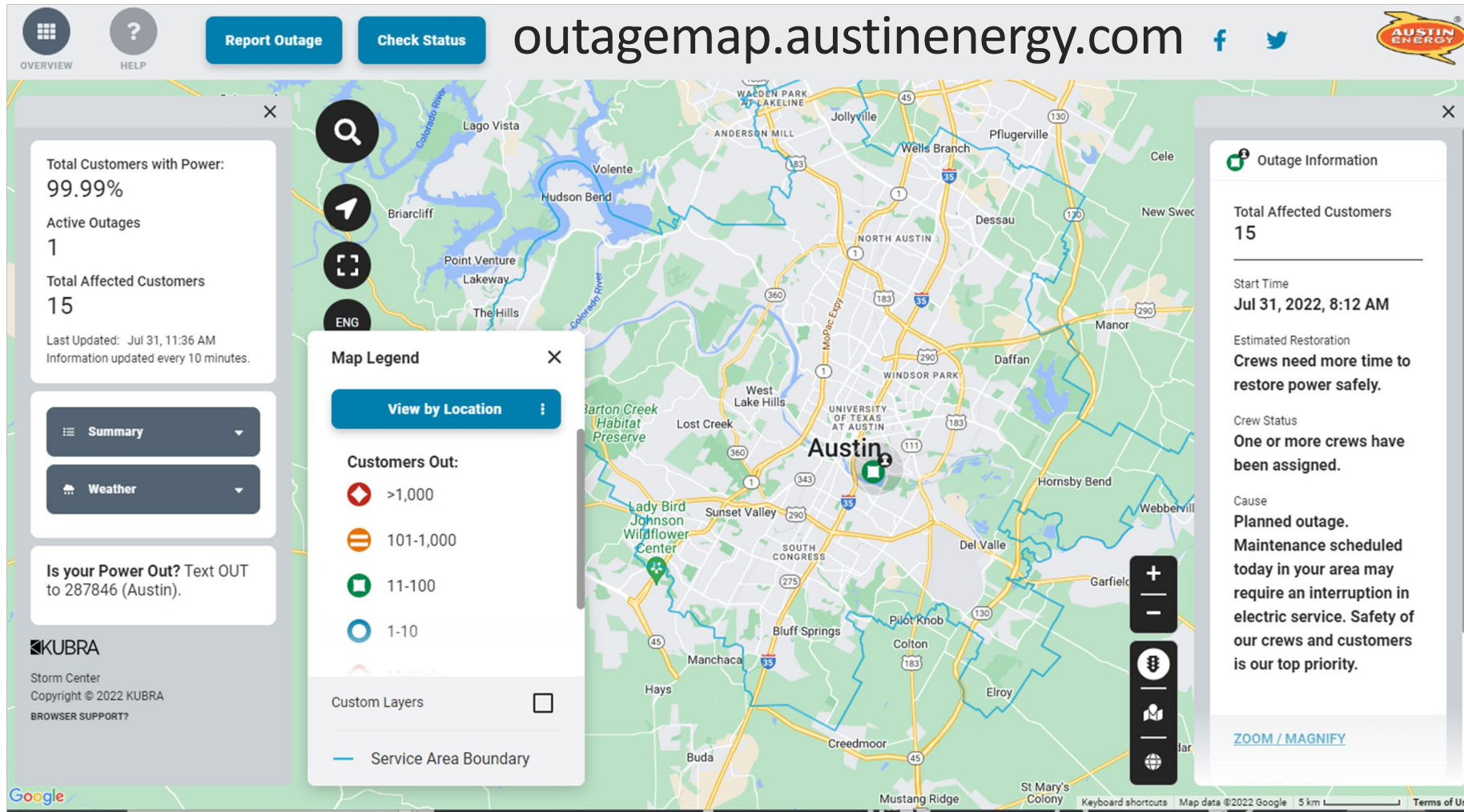




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# Local Outages



## Common Causes of Outages



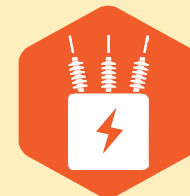
Car Crashes



Downed Trees



Animal Interference



Equipment Issues



Construction Incidents







**Customer Driven.  
Community Focused.<sup>SM</sup>**



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