

# Austin Energy Operational Update Q4 FY21

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# Austin Energy Operational Update

## Discussion Topics



Performance



Carbon Footprint

On-Site Energy  
Resources

Future State



# Austin Energy Operational Update

## Performance



# Commercial Availability & Start Success

## Commercial Availability

Generation Resource	Target Seasonal Commercial % Availability	Commercial Availability Actuals (%)	
		Q3 FY21 AVG	Q4 FY21 AVG
Decker Steam Units	95	94	96
Sand Hill Combined Cycle	95	64	95
Fayette Units	97	90	99
South Texas Project	100	87	100

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

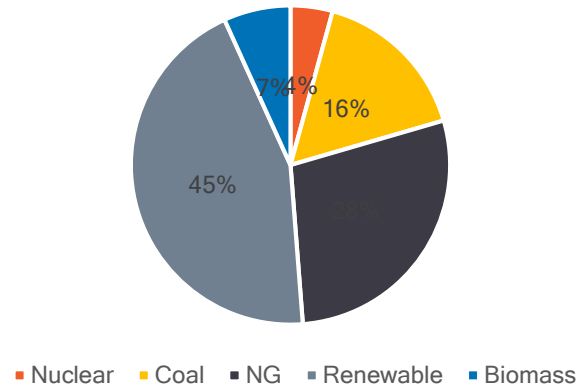
## Start Success

	Start Success Target(%)	Start Success Actuals (%)	
		Q3 FY21 AVG	Q4 FY21 AVG
Simple Cycle Start Success	99	100	100



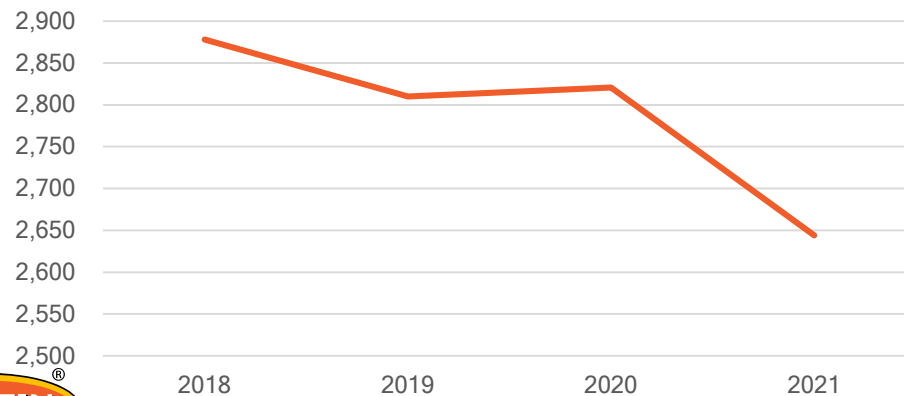
# Net Generation and Load Analysis FY 2021 Q4

## Power Generation Cost by Fuel Type

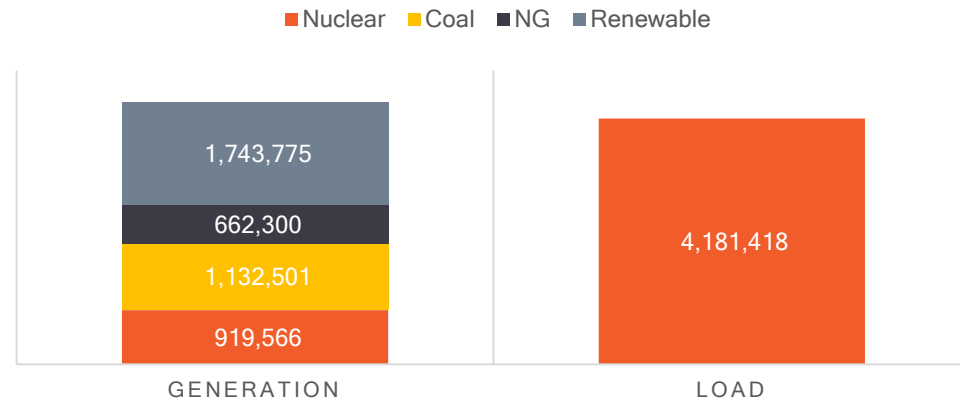


\*Costs include fuel for generation, fuel transportation, renewable Power purchases agreements

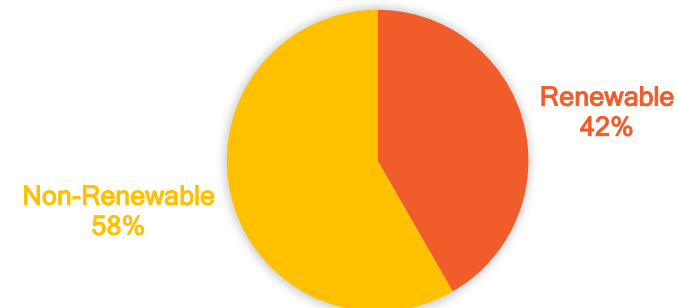
## Historical FY21 Q4 System Peak Demand (MW)



## CONSUMPTION VS. GENERATION (MWH)



## RENEWABLE POWER AS PERCENT OF CONSUMPTION



# System Reliability

**CAIDI = Customer Average Interruption Duration Index**

*Average time to restore service.*

**SAIDI = System Average Interruption Duration Index**

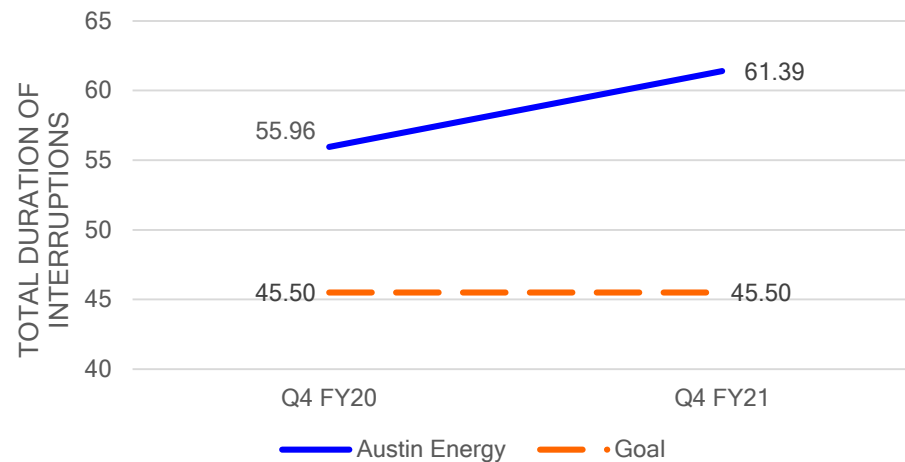
*Total duration of interruptions for the average customer, during a period of time.*

**SAIFI = System Average Interruption Frequency Index**

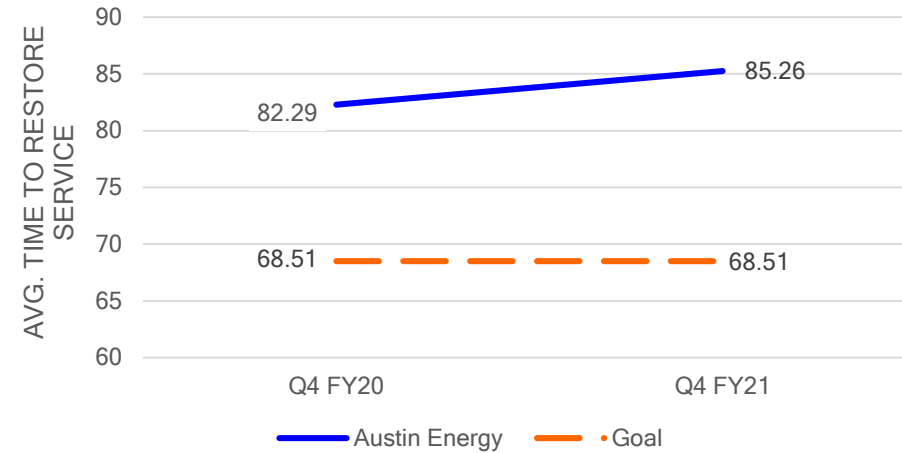
*How often the average customer experiences a sustain interruption, over a period of time.*

**MED = Major Event Days**

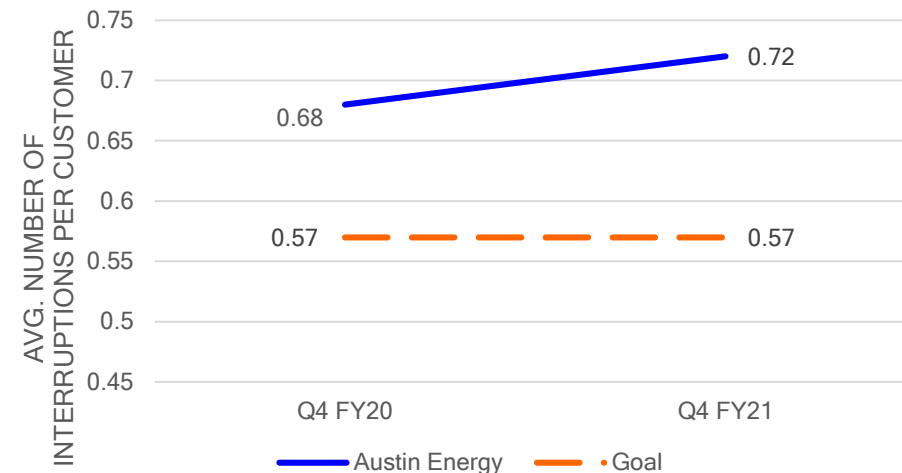
SAIDIs w/o MED



CAIDIs w/o MED



SAIFIs w/o MED

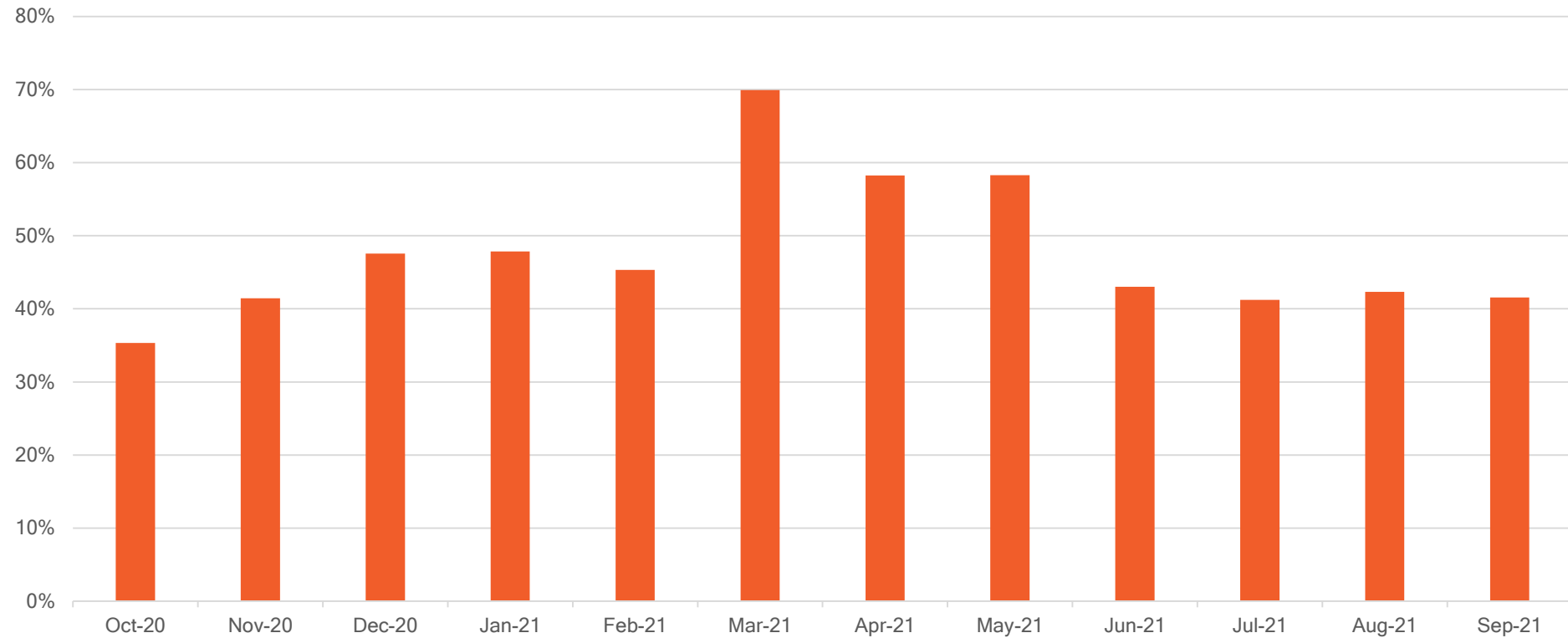


# Austin Energy Operational Update

## Carbon Footprint



# Renewable Generation as a Percentage of Load





# Environmental Focus

## Reducing our Carbon Footprint

Key programs and projects designed to:

- Expand Renewable Portfolio
- Integrate Distributed Energy Resources

### New Wind and Solar Resources

- Aragorn Solar (180 MWs) has an expected **COD of November 30, 2021**
- Pandora Solar (250 MWs) is an outer year PPA with an unchanged expected **COD of December 2023**



# Austin Energy Operational Update

## District Cooling Projects



# Key District Energy & Cooling Activities

## District Cooling Plant #3 (Downtown, Crescent Tract)

Constructing 10,000 ton chilled water plant for the Downtown System

- Project is substantially complete
- Contractor working on final completion punch-lists and close out documentation

## Austin Community College Highland Campus

Constructing a 6,000 ton chilled water plant with Thermal Energy Storage

- Installing a new coupling, with new supports, and additional pipe reinforcements around piping
- Project still within budget
- **On-Target for substantial completion in Q4 2021**

## Domain Switchgear Upgrade

- eFAT testing on transformers were successful
- Delivery of switchgear by subcontractor will impact completion date
- **On-Target for substantial completion in Q2 2022**



# Austin Energy Operational Update

## Future State



# Grid Resilience

## 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/2021)**

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



#### 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 (Q2/2027)**



#### 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 - (Q2/2022)**



#### 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 (Q4/2022)**



# Austin Energy Operational Update

## Appendix

