

Austin Energy Operational Update Q2 FY22

Austin Energy Utility Oversight Committee – May 2022

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Discussion Topics



Performance



Carbon Footprint



On-Site Energy Resources



Future State

Executive Summary



Generator availability on target.

For the quarter, resources meet availability targets, except where planned outages were experienced.



Renewable production on target.

For the quarter, aggregate quarterly renewable production as a percentage of load at 59%.



Reliability benchmarks for the quarter, seasonably impacted by winter weather.

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



Carbon free production on target.

For the month of March, approaching 100% carbon free generation as a percentage of load.

Austin Energy Operational Update

Performance



Commercial Availability & Start Success

Commercial Availability

Generation Resource	Target Seasonal Commercial % Availability	Commercial Availability Actuals (%)	
		Q1 FY22 AVG	Q2 FY22 AVG
Decker Steam Units	95	76	98
Sand Hill Combined Cycle	95	44	55
Fayette Units	97	51	97
South Texas Project	100	84	100

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

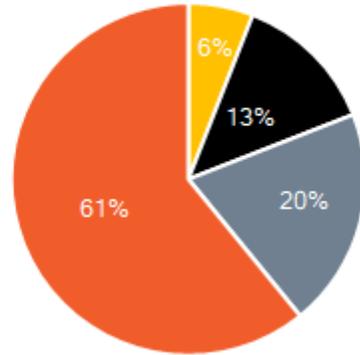
Start Success

	Start Success Target(%)	Start Success Actuals (%)	
		Q1 FY22 AVG	Q2 FY22 AVG
Simple Cycle Start Success	99	100	100



Net Generation and Load Analysis FY 2022 Q2

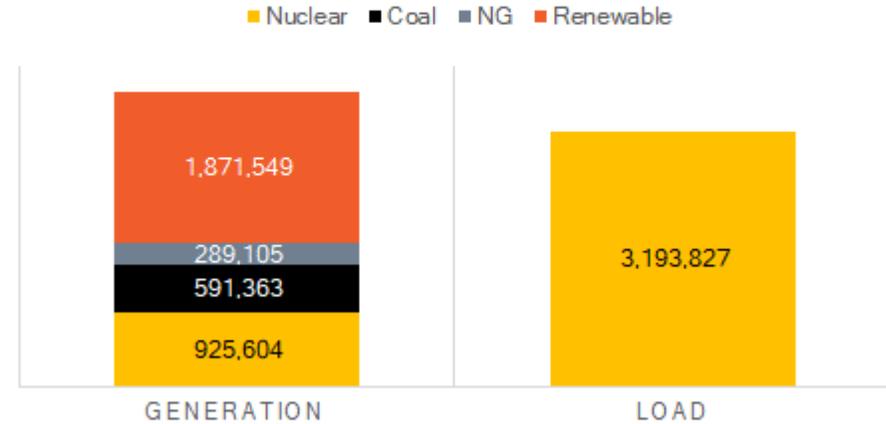
Power Generation Cost by Fuel Type



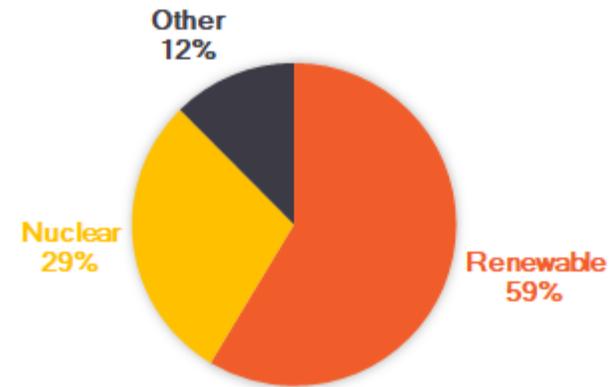
■ Nuclear ■ Coal ■ NG ■ Renewable

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

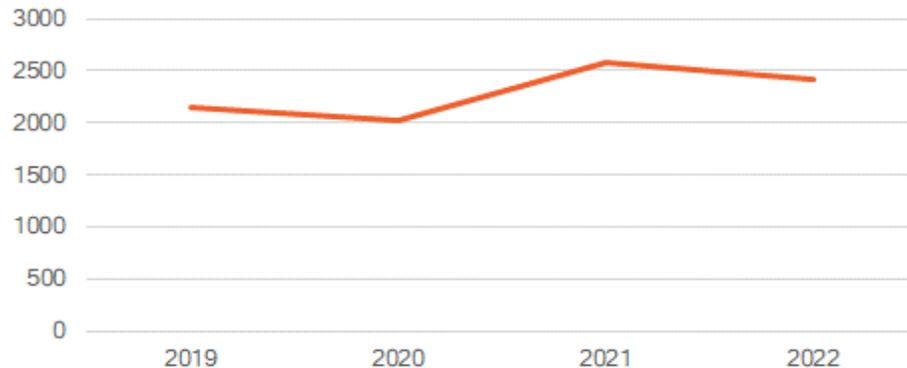
CONSUMPTION VS. GENERATION (MWH)



RENEWABLE POWER AS PERCENT OF CONSUMPTION



Historical FY22 Q2 System Peak Demand (MW)



Resilience and Reliability are Austin Energy Strategic Goals



- **Distribution Grid Resilience Program**

- Wildfire Mitigation
- Feeder Coordination

- **Reliability Strengths**

- Overall Distribution Reliability
- Transmission System Performance

- **Opportunities for Improvement**

- Pockets of Poor Performance on the Distribution System
- Substation Reliability

- **Current Improvement Initiatives**

- Improve Current Reliability Metrics
- Address pockets of poor performance on the distribution system
- Address poor substation performance



System Reliability

CAIDI = Customer Average Interruption Duration Index

Average time to restore service

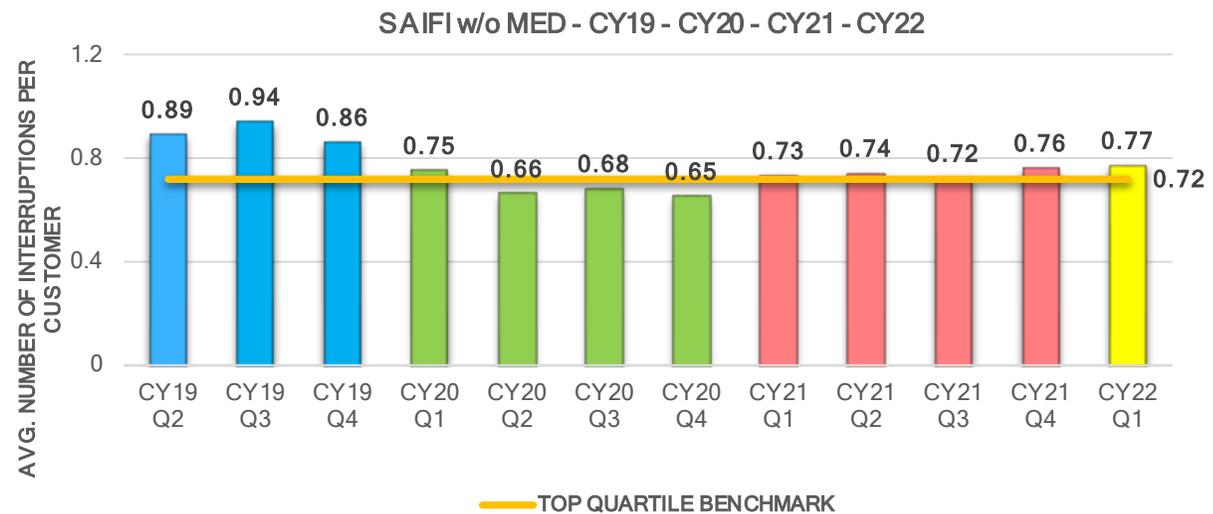
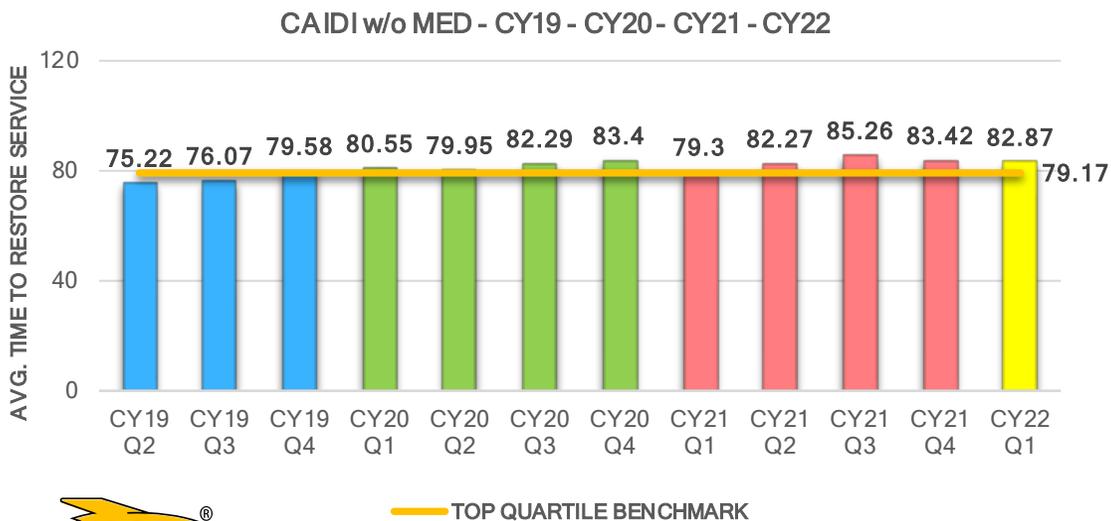
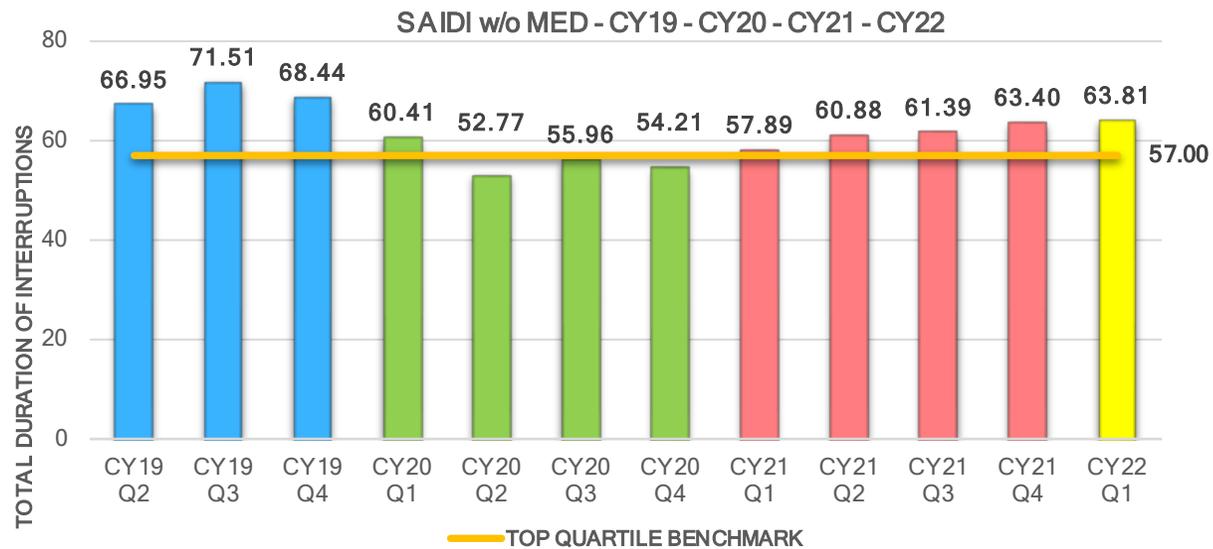
SAIDI = System Average Interruption Duration Index

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

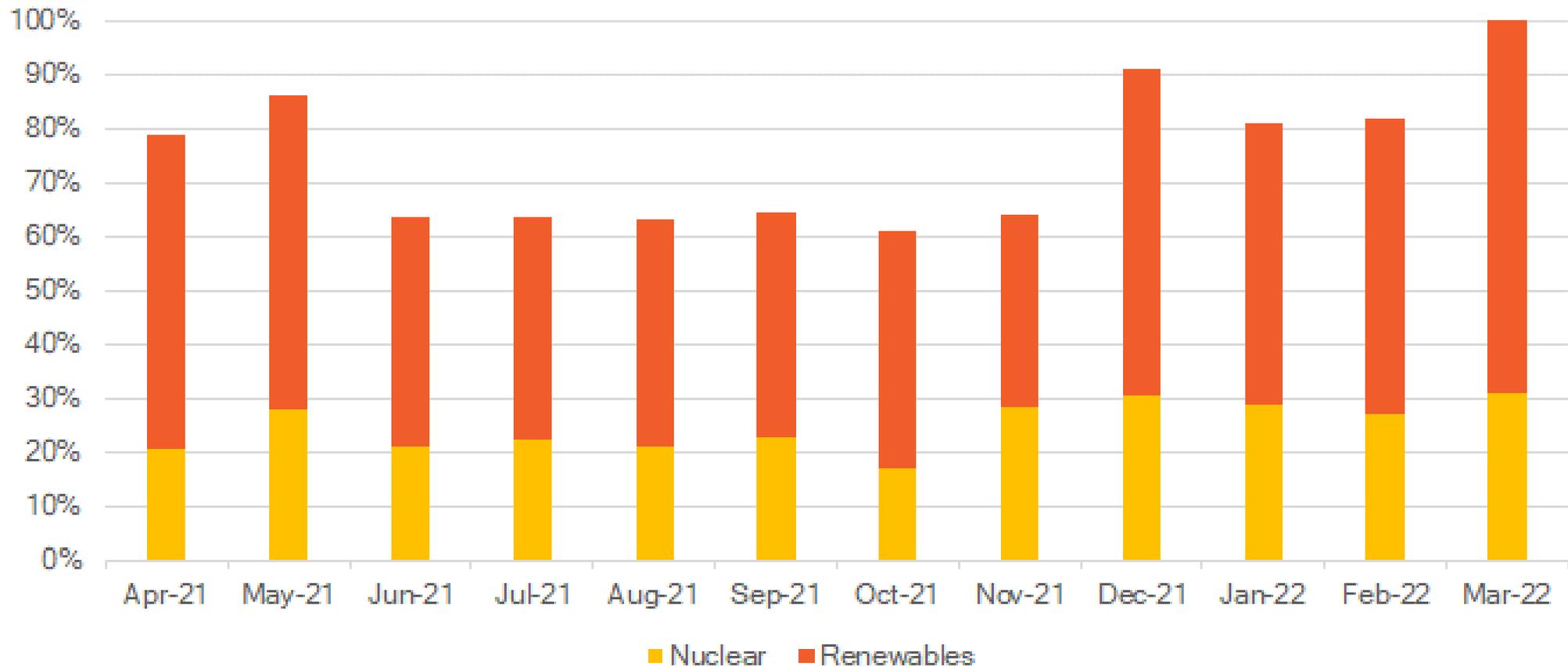


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Carbon Footprint

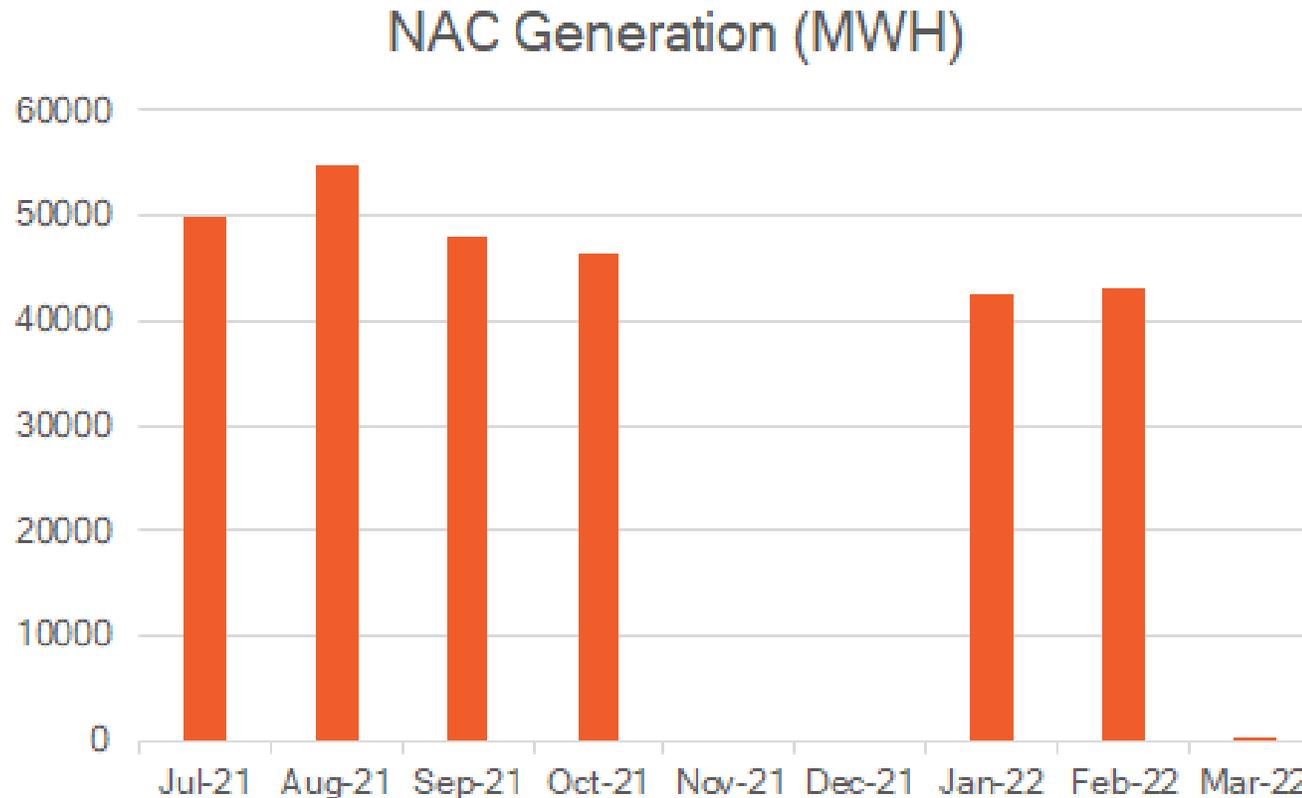


Carbon-Free Generation as a Percentage of Load



NAC Generation & Outages

Nacogdoches Biomass Plant took a planned outage for repairs in Nov. and Dec. and came back to service in January 2022 to serve winter peak demand.



Environmental Focus

Reducing our Carbon Footprint

Key programs and projects designed to:

- Expand Renewable Portfolio
- Integrate Distributed Energy Resources

Experiencing Supply Chain Impacts



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On-Site Energy Resources



Key District Energy & Cooling Activities

Austin Community College Highland Campus

Commercial operation of 4500 - ton chilled water plant on the ACC Campus – effective May 2022.

Projects in Design Phase

Customer Connections expected in **2024**:

- Waller Creek Tower
- 4th and Brazos
- 201 San Jacinto



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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/2022 - IN PROGRESS)

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



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 - (Q4/2022)**~~



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 (Q4/2023)**~~



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Appendix

