

Austin Energy Operational Update Q3 FY20

Austin Energy Utility Oversight Committee – August 2020

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Austin Energy Operational Update

Discussion Topics



Performance



Carbon Footprint

On-Site Energy
Resources

Future State



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Performance



Commercial Availability & Start Success

Commercial Availability

Generation Resource	Target Seasonal Commercial % Availability (Jan-Mar)	Commercial Availability Actuals (%)	
		Q2 FY20 AVG	Q3 FY20 AVG
Decker Steam Units	95	46	88
Sand Hill Combined Cycle	95	82	98
Fayette Units	97	77	89
South Texas Project	100	90	90

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

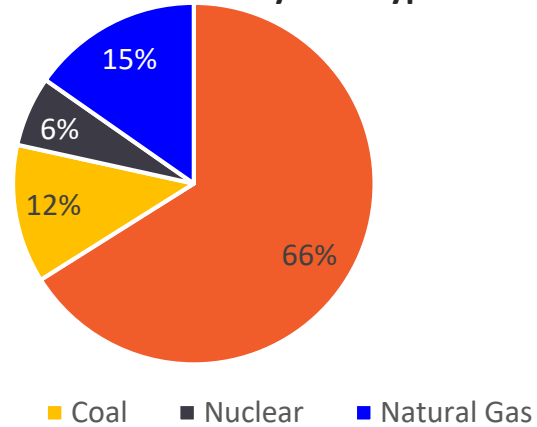
Start Success

	Start Success Target(%)	Start Success Actuals (%)	
		Q2 FY20 AVG	Q3 FY20 AVG
Simple Cycle Start Success	99	100	100



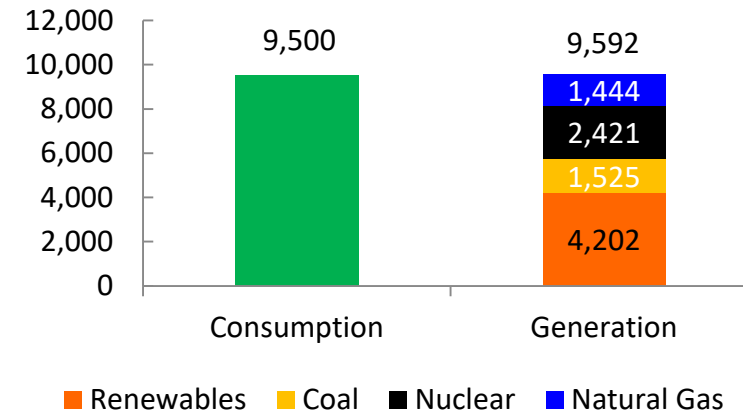
Net Generation and Load Analysis FY 2020 Q3

Power Generation Cost by Fuel Type

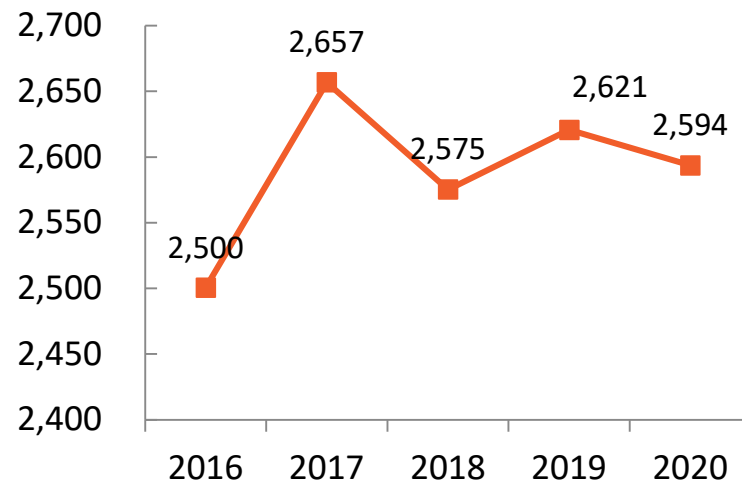


**Costs include fuel for generation, fuel transportation, renewable Power purchases agreements*

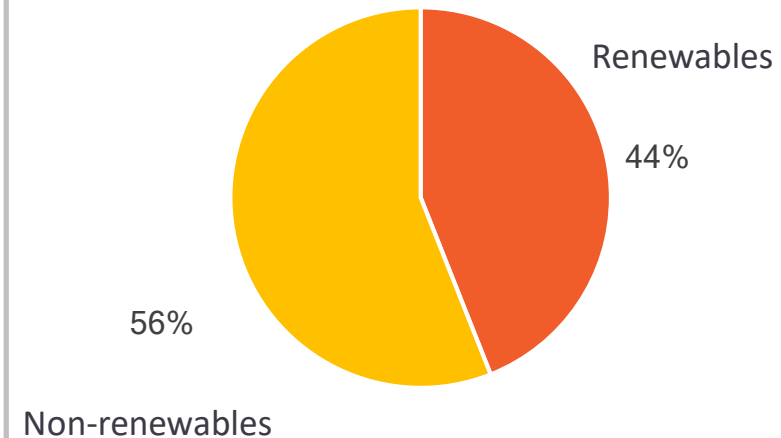
Consumption vs. Generation (GWh)



Historical FY Q3 System Peak Demand (MW)



Renewable Power as Percent of Consumption



System Reliability Metrics

CAIDI = Customer Average Interruption Duration Index

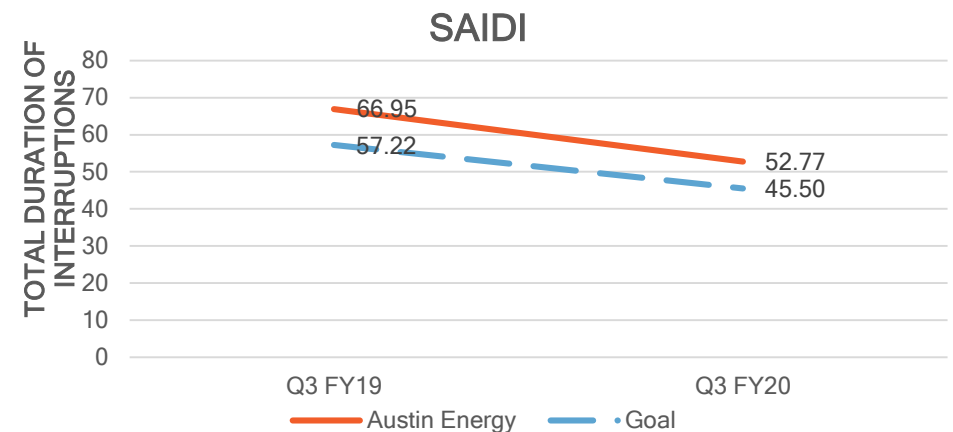
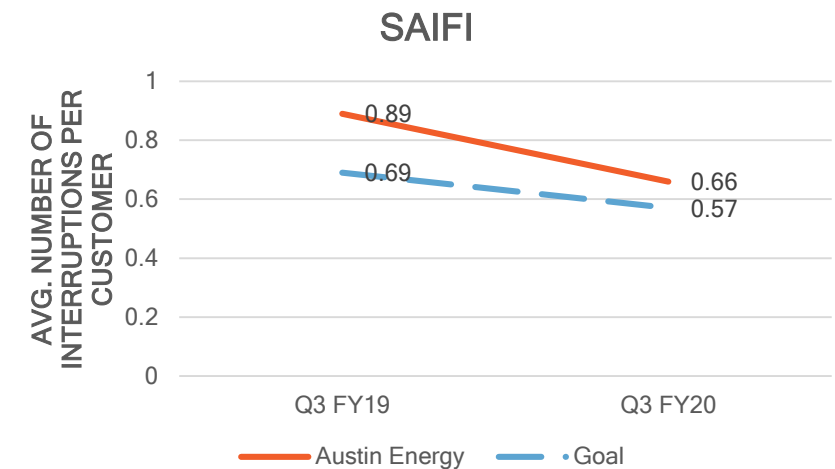
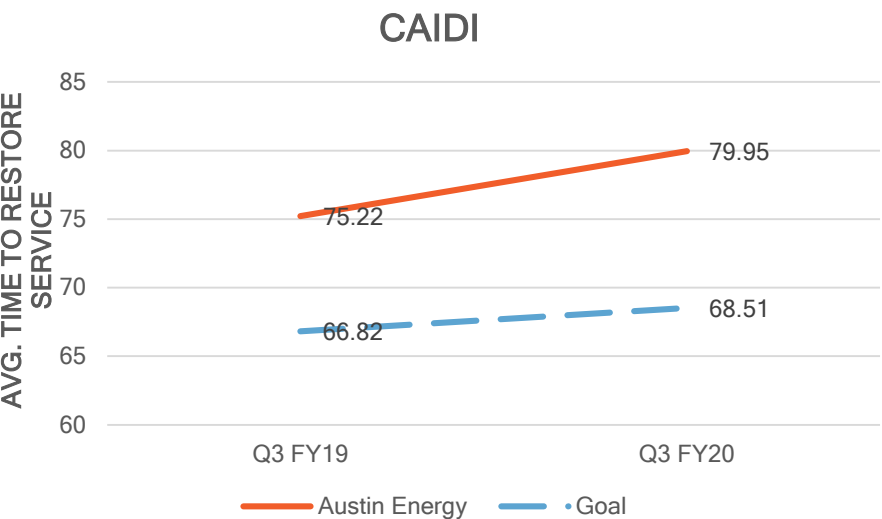
Average time to restore service.

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.

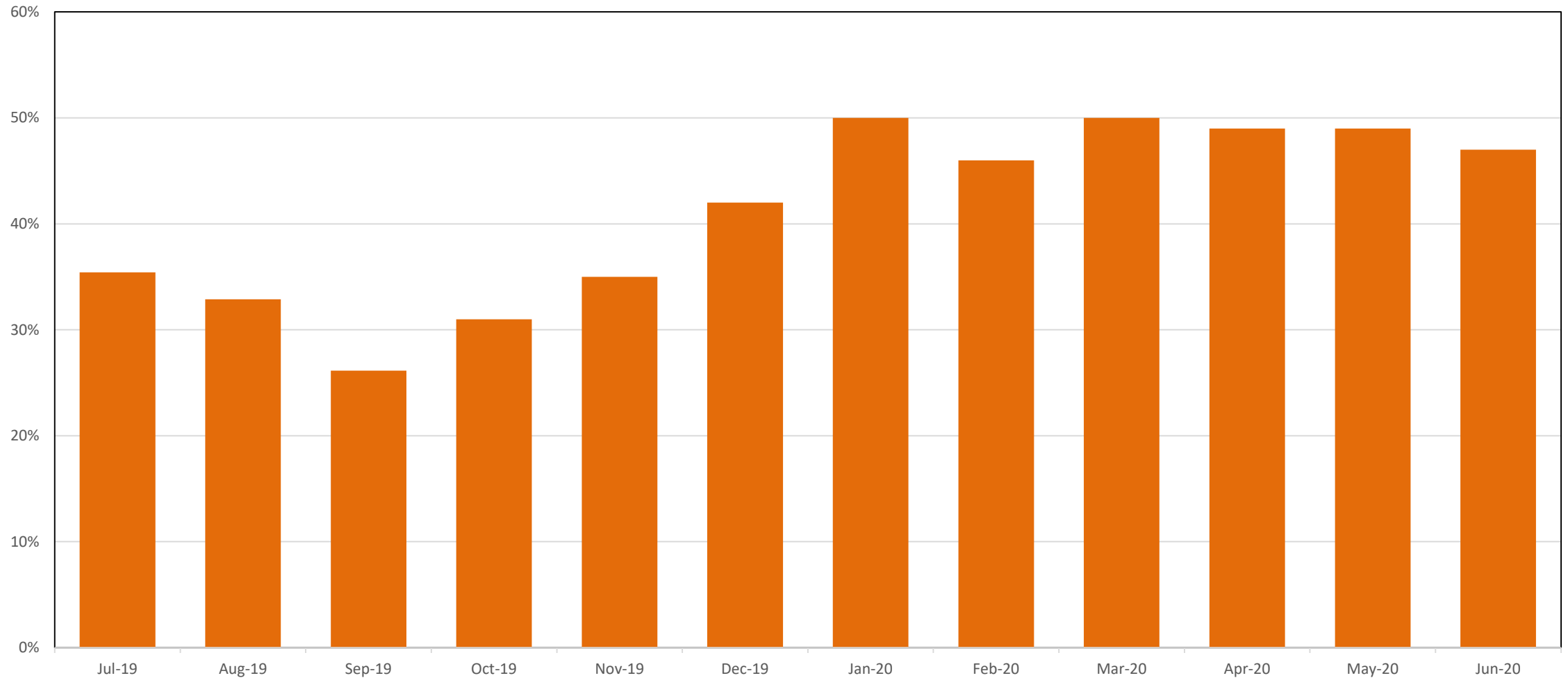


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Carbon Footprint

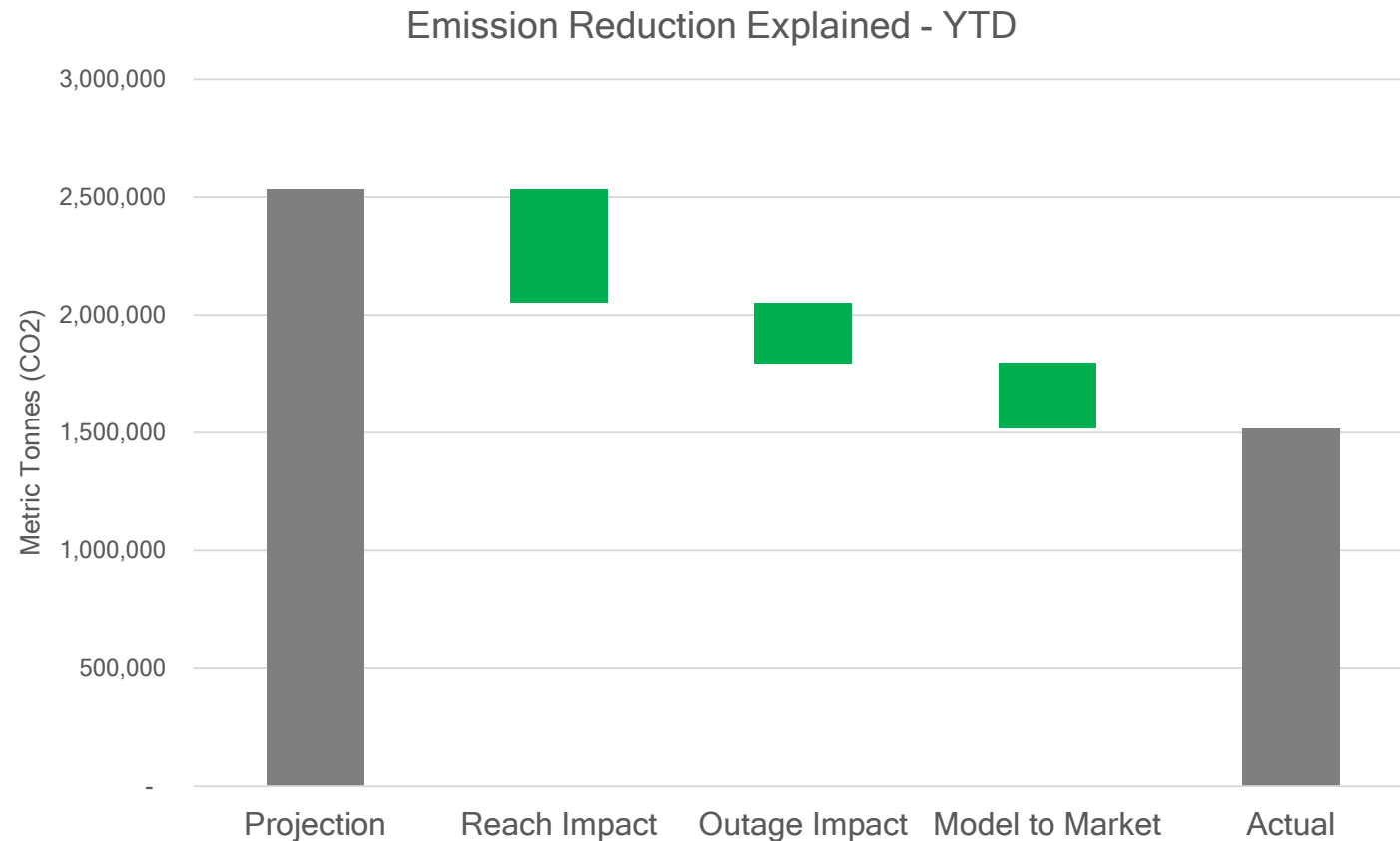


Renewable Generation as a Percentage of Load



REACH Update

Resource Plan Forecast	FPP Actual CO2 Emissions (tons)	FPP Economic CO2 Emissions (tons)	REACH Reduction (tons)
2,533,622	1,516,092	1,996,302	480,211



FY2019 – Worst Performing Feeders (WPF)

Feeders - Calendar Year 2019 WPF (High to Low Rating)
CF03
BU04
NL02
NL08
ST05
CC01
BL08
TR05
TR08
LW05
HV06

- Increased Vegetation Clearances
- Feeder and Fuse Coordination
 - New Recloser Standard
- Replacement of Aging Equipment
 - Pole Replacements



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OSER Projects



Key District Energy & Cooling Activities

District Cooling Plant #3 (Downtown, Crescent Tract)

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

- Building completed
- Chillers and electrical equipment installed
- Clay exterior tiles being installed
- On-Target for final completion by December 2020

Austin Community College Highland Campus

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

- Thermal Energy Storage tank to be completed in August
- Fire system and control conduit installations underway
- On-Target for substantial completion in Q2 2021

District Cooling Plant #4 (Downtown, Convention Center)

3,000 ton chilled water facility on roof of Convention Center

- Building complete; all equipment installed
- Equipment in use (completing punch list)
- On-Target for final completion by Q3 2020

Mueller Energy Center #2 (Mueller Redevelopment Zone)

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

- Working with developer to convey site to AE
- RFQ Responses received and being evaluated
- Targeted for substantial completion in Q1 2022



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Future State



Our Focus

Our Customers (improving reliability and connectivity)

- ↑ AMI Upgrades (Residential & Commercial Meters)
- ↑ Small Cell Deployment
- ↑ Customer Reliability Assessments

Our Community (ensuring the resiliency of the system)

- ↑ District Cooling Plant Construction
- ↑ Chilled Water Plant Construction

Environmental (reducing our carbon footprint)

- ↑ Reducing our fossil fuel
- ↑ Expanding Renewable Portfolio

Grid Modernization (innovating to a smart future)

- ↑ SHINES Deployment
(Sustainable and Holistic Integration of Energy Storage and Solar PV)
- ↑ Advanced Metering Infrastructure
- ↑ Grid Automation
- ↑ Distributed Energy Resource Integration
- ↔ Asset Management



Small Cell Deployment

- **Utility Criteria Manual updates were finalized and implemented which will:**
 - Reduce potential barriers to the roll-out of small cell technology in Austin
 - Reduce infrastructure in the right of way (electric meters and other equipment now allowed to attach to AE poles)
 - Further accommodate 5G technology by permitting 2 antennas on AE's distribution poles (previously limited to one).
- **“Swap & Drop” continues toward goal to replace streetlight poles with “small cell friendly” streetlight poles that accommodate Small Cell and 5G antennae and equipment**
 - Through the end of 2020, Pole Attachment Services is allowing carriers to propose poles for areas outside of downtown in their own designs if they meet AE's standards and are in a galvanized finish.
 - AE Standards group is working to develop and standard Swap & Drop pole (and foundation) design to be developed and vetted in cooperation with the Planning and Zoning Urban Design workgroup.
 - Poles installed under these Swap & Drop programs will in each instance replace a AE streetlight pole with the approved replacement pole, and, following acceptance by AE, the replacement pole will be conveyed to AE for AE's permanent ownership and maintenance. To expedite processing of priority sites, carriers are asked to provide their top five sites for swap and drop.
 - Swap & Drop pole installation expected to begin before the end of calendar year 2020



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Appendix

