Austin Energy Operational Update

Austin Energy Utility Oversight Committee – Feb 2019

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Austin Energy Operational Update

Discussion Topics

Safety

Performance

Carbon Footprint

Power Production

On-Site Energy Resources

Future State

Austin Energy Operational Update

Safety

Safety

Data	Q4 FY18 (7/18 – 9/18)	Q1 FY19 (10/18 – 12/18)	
Annualized Employee Count	1,722	1,748	
Total Hours	770,393	915,358	
Total Near Misses	23	28	
Total Injuries	16	24	
Total Recordable Cases	7	7	
Total Vehicle Accidents	14	24	

Challenges Still Exist

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Performance

Commercial Availability & Start Success

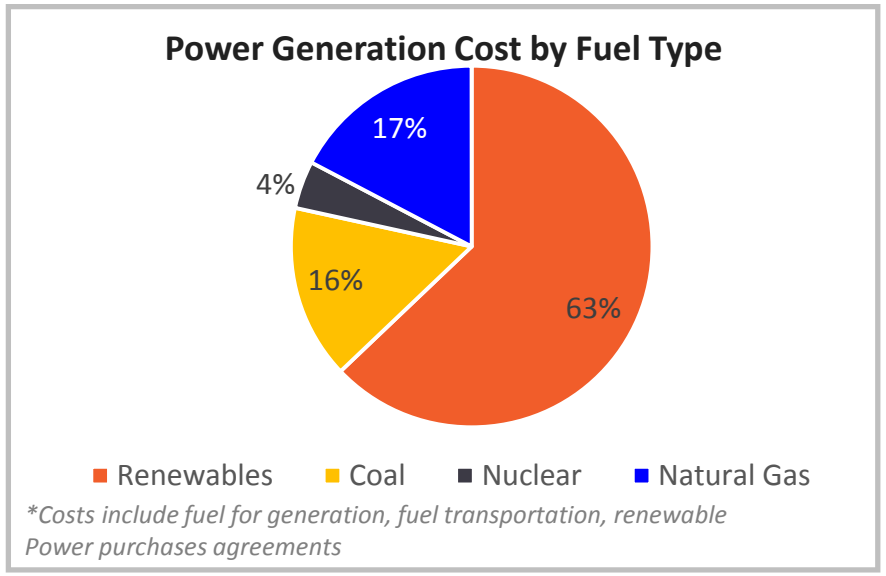
Commercial Availability

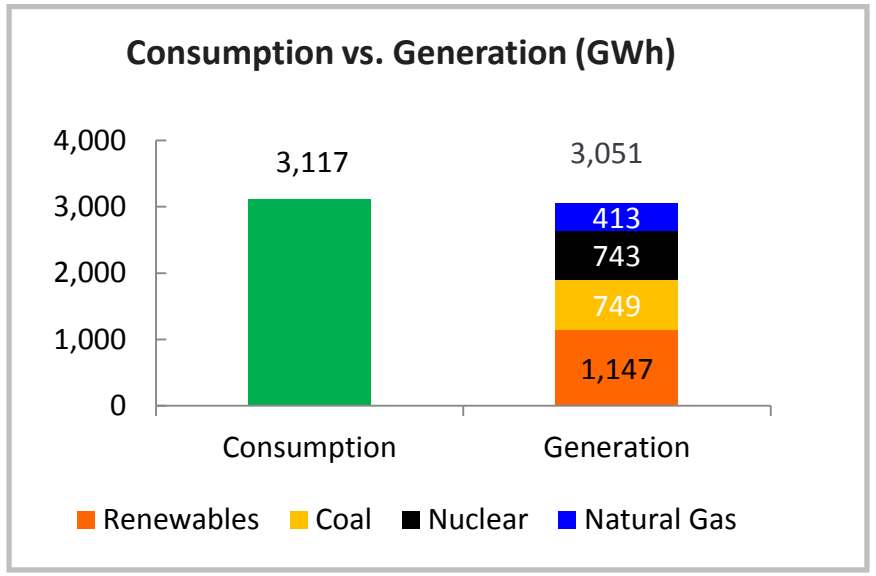
Generation Resource	Q1 FY 2019 Commercial Availability (%)	FY2019 Commercial Availability Target (%)
Decker Steam Unit 1	76	97
Decker Steam Unit 2	49	97
Sand Hill Combined Cycle	85	97
Fayette Unit 1	100	97
Fayette Unit 2	16	97
South Texas Project Unit 1	16	100
South Texas Project Unit 2	100	100

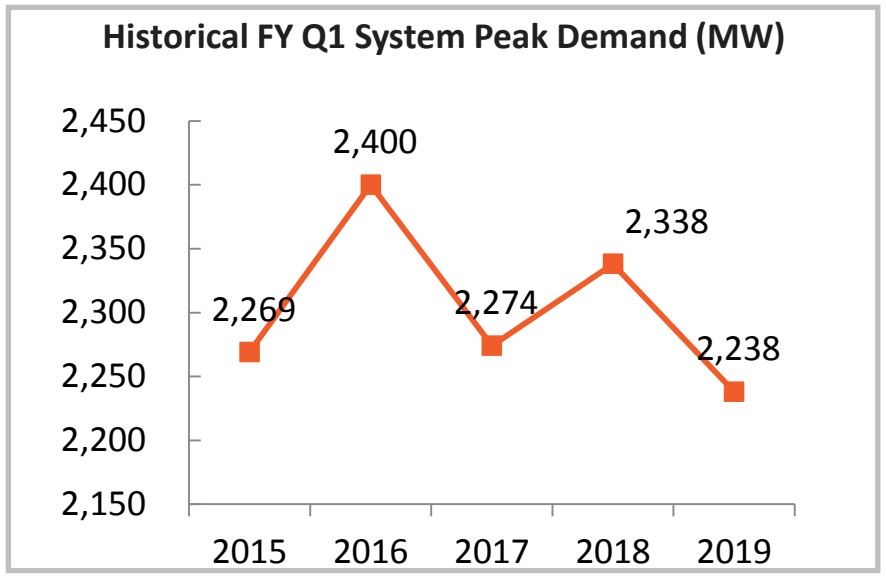
Start Success

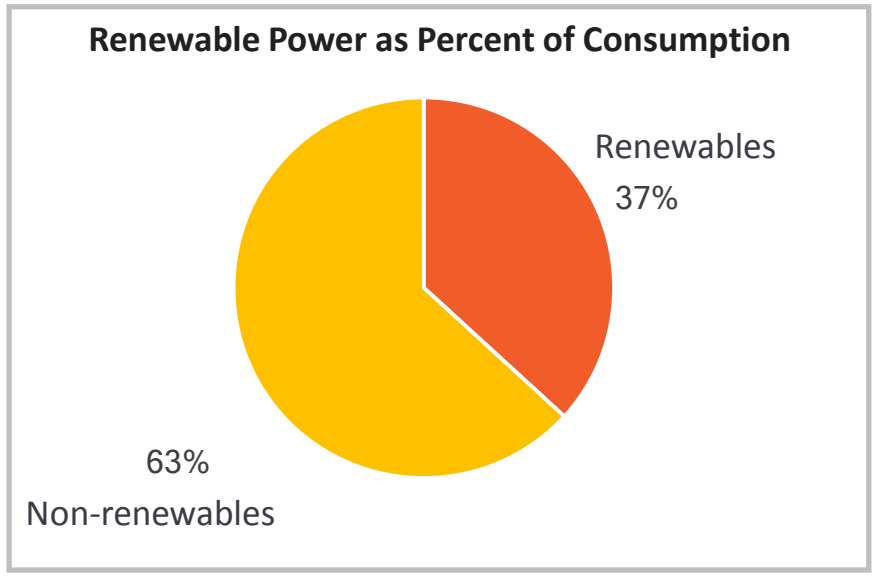
Generation Resource	Q1 FY 2019 Start Success (%)	FY 2019 Target (%)
Decker Simple Cycle Start Success	100	99
Sand Hill Simple Cycle Start Success	99	99

Net Generation and Load Analysis FY 2019 Q1









System Reliability

CAIDI = Customer Average Interruption Duration Index

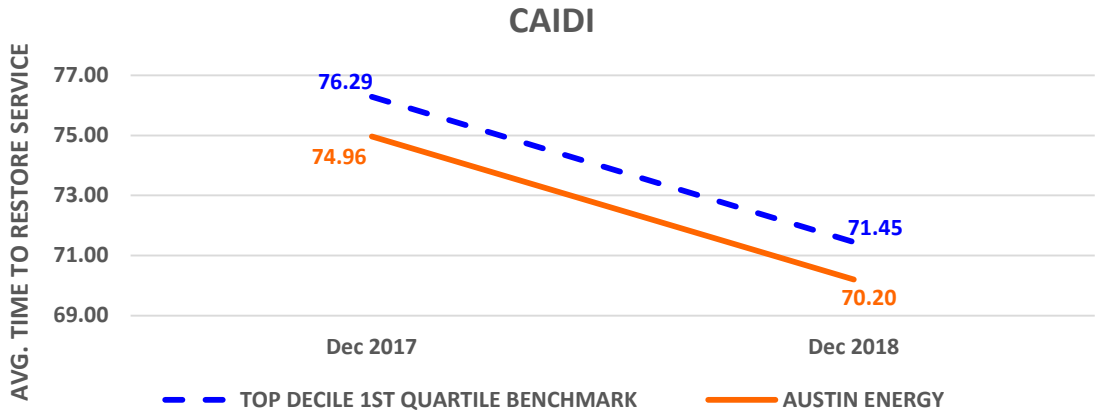
Average time to restore service.

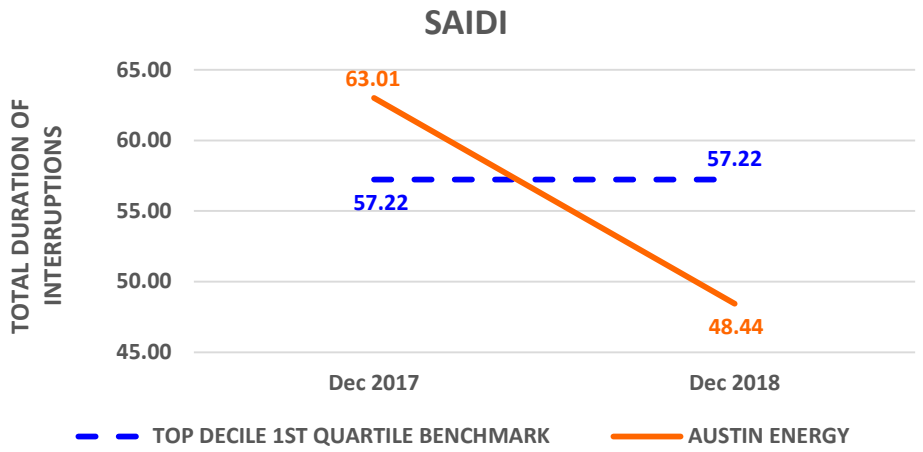
SAIDI = System Average Interruption Duration Index

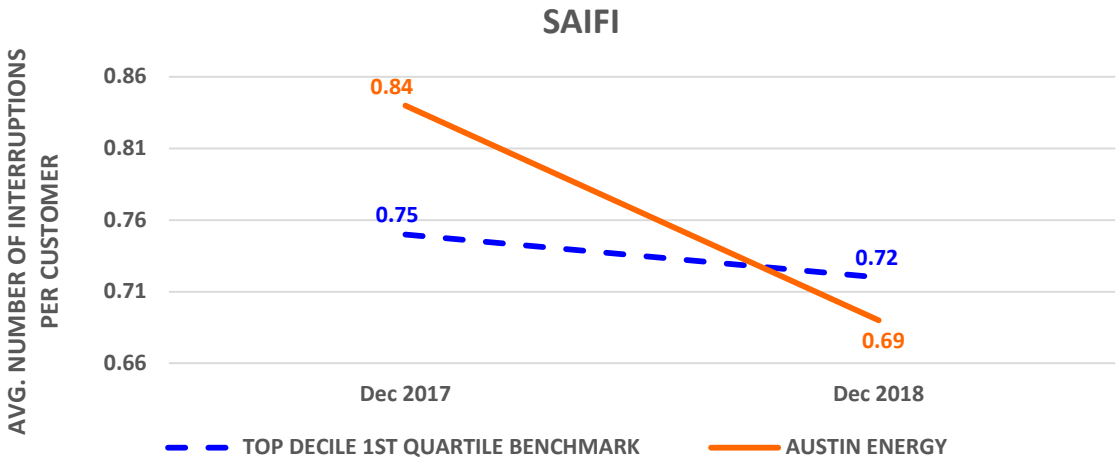
Total duration of interruptions for the average customer, during a period of time.

SAIFI = System Average Interruption Frequency Index

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







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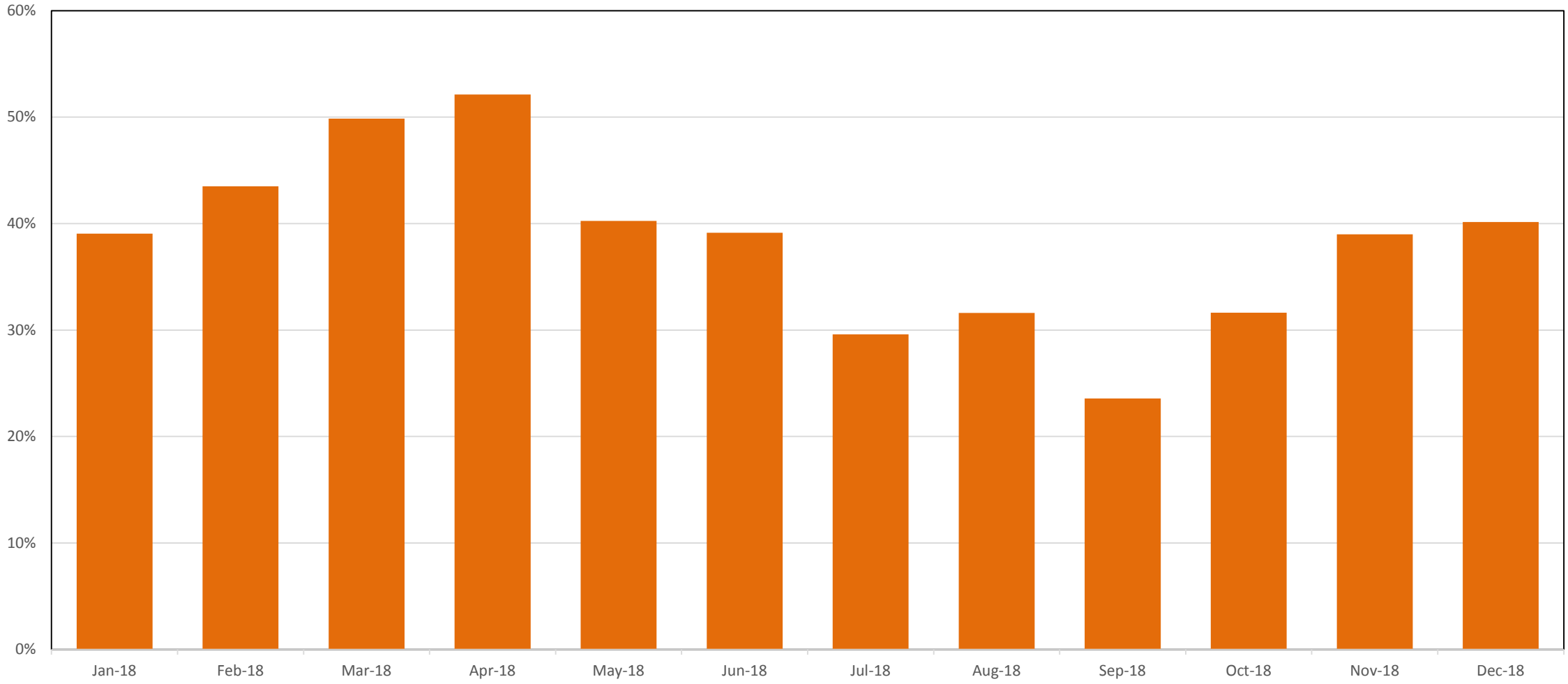
Carbon Footprint

Renewable Generation as a Percentage of Load



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Power Production & OSER

Key On Site Energy & Power Production Activities

District Cooling Plant #3 (Downtown, Crescent Tract)

Adding 10,000 tons of chiller capacity in the Downtown System

- Foundation piers complete and beginning slab work
- Boring for electric duct bank complete
- **On-target for mid-2020 completion**

Downtown Chiller Capacity Addition (Design/Build)

Adding 3,000 tons of chiller capacity in the Downtown System

- Negotiating the first work package release for schematic design and procurement of long-lead equipment
- **On-target for early-2020 completion**

Thermal Power Plants

Planned post-summer outages

- South Texas Nuclear Project maintenance & refueling completed
- Multi-unit maintenance outages completed or on-going at Fayette Power Project, Sand Hill, & Decker
- **On track for reliable summer 2019 operations**

Decker Steam Unit Retirement Planning

2017 Resource Plan Update includes retirement of Decker Steam Units in 2020 & 2021

- Early planning stages for operational and staff needs
- Transition Team implemented specifically focused on preparing employees for reduced staffing levels
  - Designed to maximize long lead time to help impacted employees prepare
  - Includes career development, training for new opportunities
  - Will use attrition to minimize impacts
- Final plans subject to approval by Electric Reliability Council of Texas (ERCOT)
- All employee announcement regarding retirement made February 1, 2019

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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)

- Repowering Downtown
- Bluff Springs Substation
- 69 to 138kV Conversion

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

Advanced Metering Infrastructure

Realized Benefits of Advanced Meters

- **Remote Service Switching - Residential**
  - *Currently in utilized in discrete instances daily, awaiting phased automation est. CY19*
  - *Austin Energy currently behind other utilities in it's implementation of Automated RSS*

- **Interval Data Collection; Customer Energy Awareness**
  - *Advanced Meters will collect and store 15 minute interval data across all platforms*
  - *Austin Energy moving toward industry norm, offering a unified customer portal displaying 15 minute interval data alongside monthly billing*

- **Over the Air meter re-programming**
  - *Advanced Meters provide capability to re-program meters over the air*
  - *Further reduces need for truck rolls; allows for dynamic additions and revisions of diagnostic and alarm settings; est. CY19*

- **Increased Alarms, Events and Diagnostic information**
  - *Advanced Meters are capable of providing more granular information on service health and energy flow*

- **Stream Meter Readings and Alarms**
  - *Increased ability to provision energy values and diagnostics "real time" for use in operations EX: VoltVar Optimization, est. CY19*