Austin Energy Operational Update Q2 FY19

Electric Utility Commission

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Item 25

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	Q1 FY19 (10/18 – 12/18)	Q2 FY19 (1/19 – 3/19)	
Total Near Misses	20	23	
Total Injuries	14	12	
Total Recordable Cases	5	6	
Total Vehicle Accidents	15	22	

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Performance

Commercial Availability & Start Success

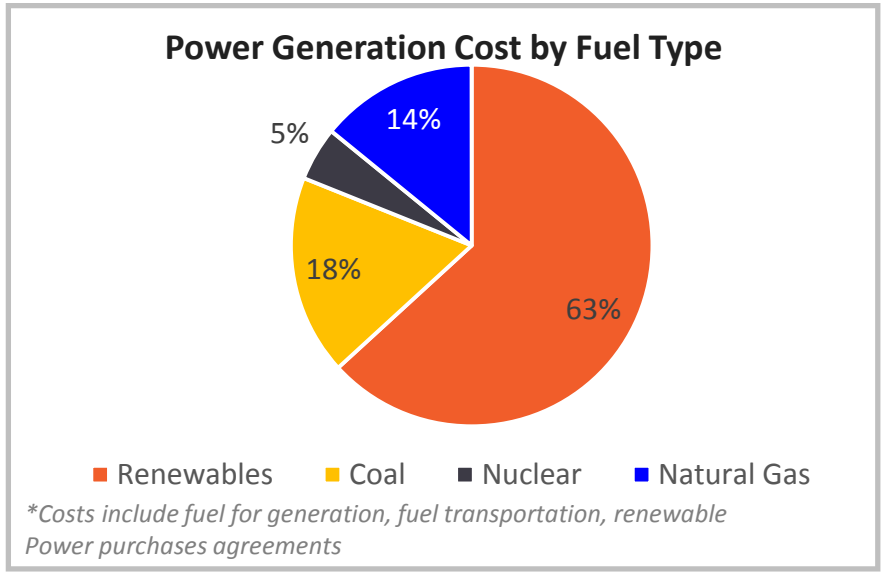
Commercial Availability

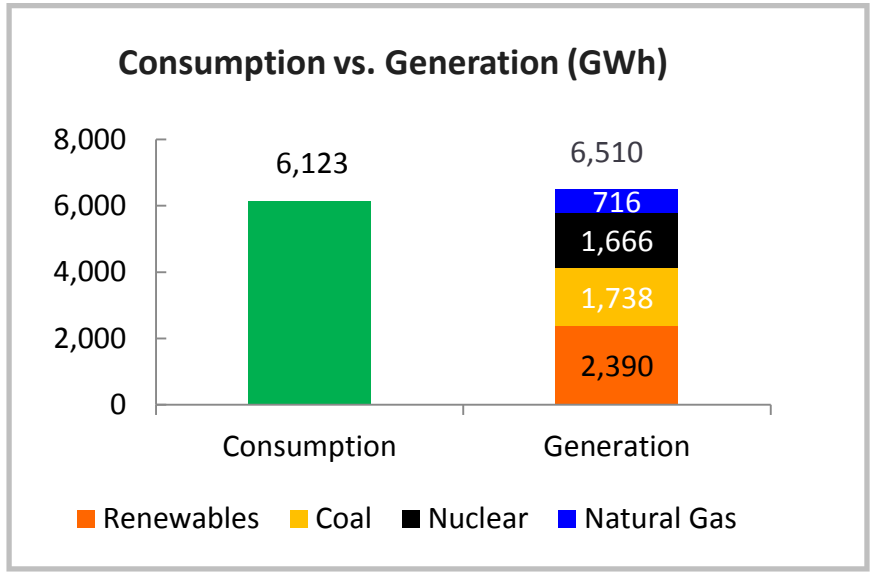
Generation Resource	Target Seasonal Commercial % Availability (Jun-Sep)	Commercial Availability Actuals (%)			
		Jan 19	Feb 19	Mar 19	Q2 FY19 AVG
Decker Steam Units	95	50	31.05	52.3	44.5
Sand Hill Combined Cycle	95	96.2	89.7	0	62
Fayette Units	97	100	95.2	86.45	93.9
South Texas Project	100	100	100	100	100

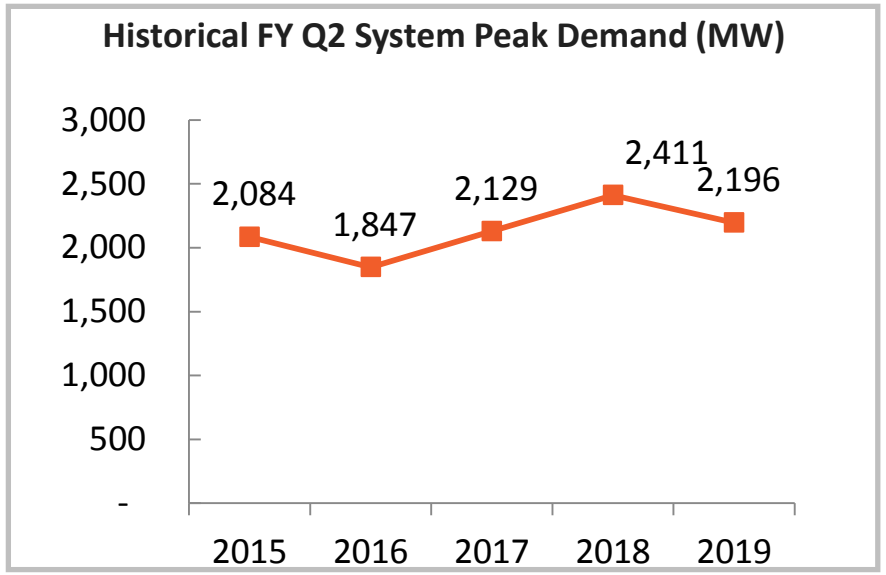
Start Success

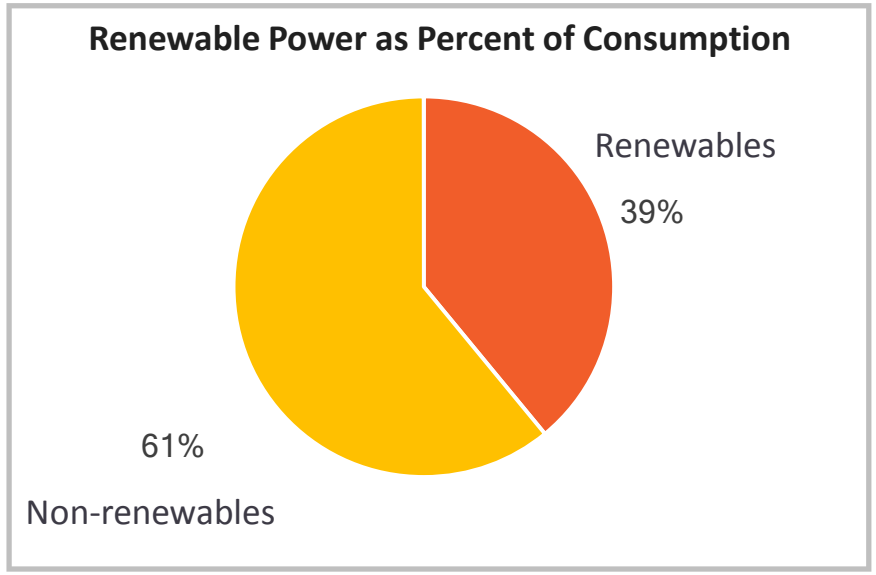
	Start Success Target(%)	Start Success Actuals (%)			
		Jan 19	Feb 19	Mar 19	Q2 FY19 AVG
Simple Cycle Start Success	99	99.2	100	100	99.7

Net Generation and Load Analysis FY 2019 Q2









System Reliability

CAIDI = Customer Average Interruption Duration Index

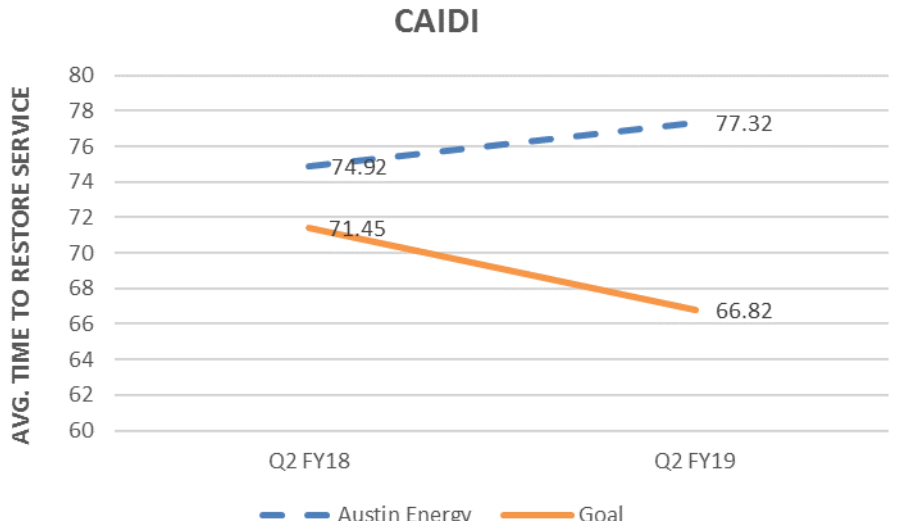
Average time to restore service.

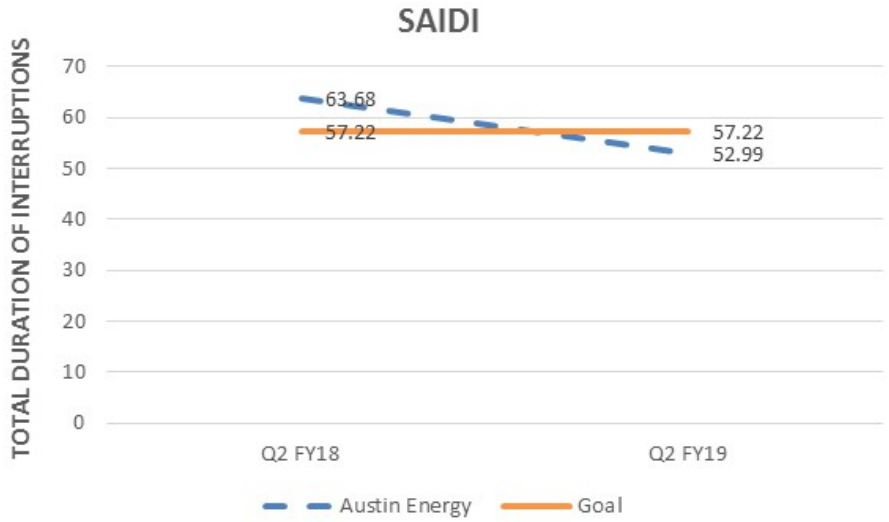
SAIDI = System Average Interruption Duration Index

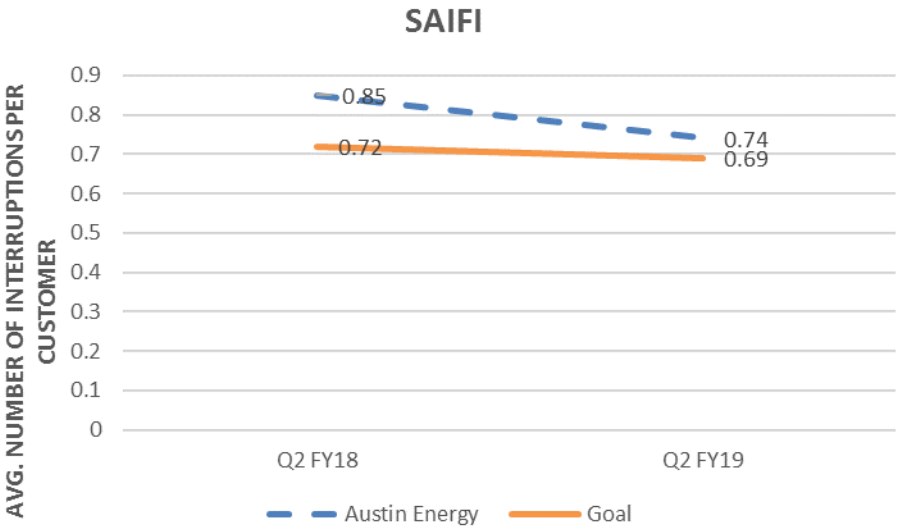
Total duration of interruptions for the average customer, during a period of time.

SAIFI = System Average Interruption Frequency Index

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



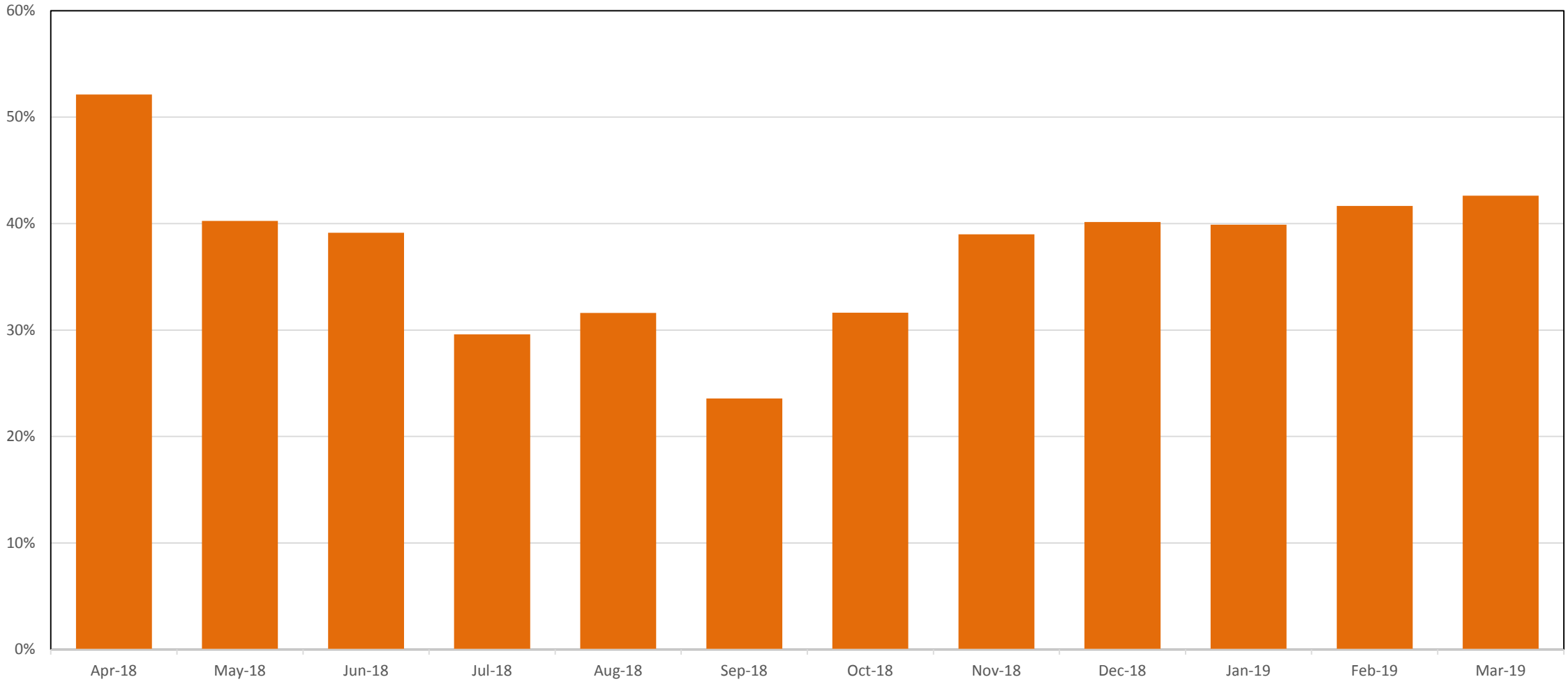




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Carbon Footprint

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

- **Contractor working on erecting foundation slab and walls for the chiller building and continues to install underground electrical and plumbing piping within the site.**
- **On-Target for August 2020 completion**

Austin Community College – Highland Campus

Constructing a 6,000 ton chiller plant with thermal energy storage tank

- **Construction contract out for bids**
- **On-Target for spring-2021 completion**

Thermal Power Plants

Planned post-summer outages

- South Texas Nuclear Project 2 maintenance & refueling
- Multi-unit maintenance outages at Fayette Power Project, Sand Hill, & Decker
- **On-Track for reliable summer 2019 operations**

Austin Energy Operational Update

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

Austin Energy Operational Update

Vegetation Management Program

Austin Energy Vegetation Management Program

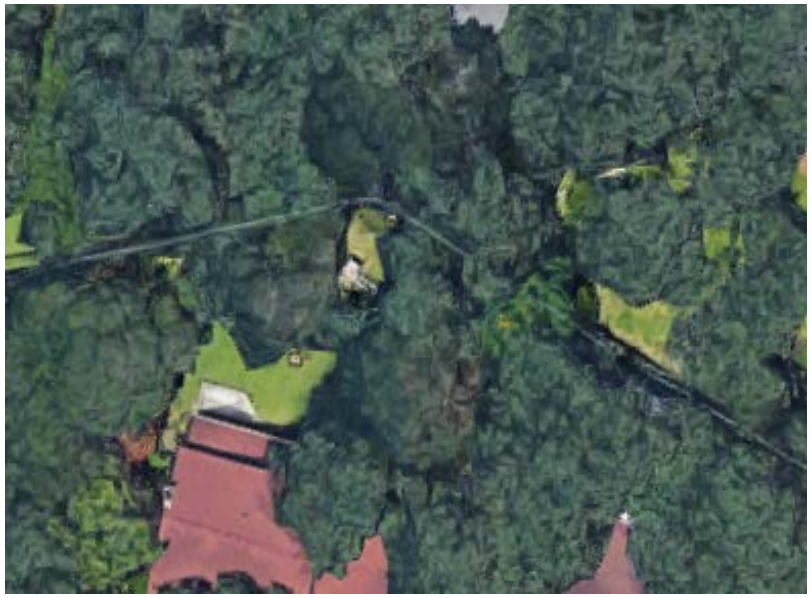
Barrier to Prudency: Risk of Wildfire



"We recognize that more must be done to adapt to and address the increasing threat of wildfires and extreme weather in order to keep our customers and communities safe," said John Simon, PG&E Interim Chief Executive (WSJ - 2/28/19)

Austin Energy - Vegetation Management Program

Barriers to Prudency: Inadequate trim clearances and heavy tree regrowth



Northwest (Balcones Woods)



Southwest (South Lamar)



Northeast (Windsor Park)

Travis County Rainfall *: Years with >20 weeks of severe, extreme or exceptional drought: 2006, 2008, 2009, 2011, 2012, 2013 and 2014 *National Integrated Drought Information System (NIDIS) program

OUR AREA

Austin Energy - Vegetation Management Program

Achieving prudency: Increase clearances

AE's **pre-2006** pruning clearances:
Fast growing species – 11 to 13 ft.
Slow growing species – 7 to 9 ft.

AE's **CURRENT** pruning clearances:
Fast growing species - 8 ft.
Slow growing species - 4 ft.

- Clearances for 2-3 year cycle
- With no range of clearances, flexibility in the field reduced

AE's **NEW** pruning clearances:
Fast growing species - **11 to 15** ft.
Slow growing species – **7 to 10** ft.

- Clearances for 4-5 year cycle
- Range of clearances for flexibility in field
- Compliant with International Society of Arboriculture Standards
- Compliant with City's tree preservation ordinances

Austin Energy - Vegetation Management Program

Achieving prudency: Streamline Customer Notifications

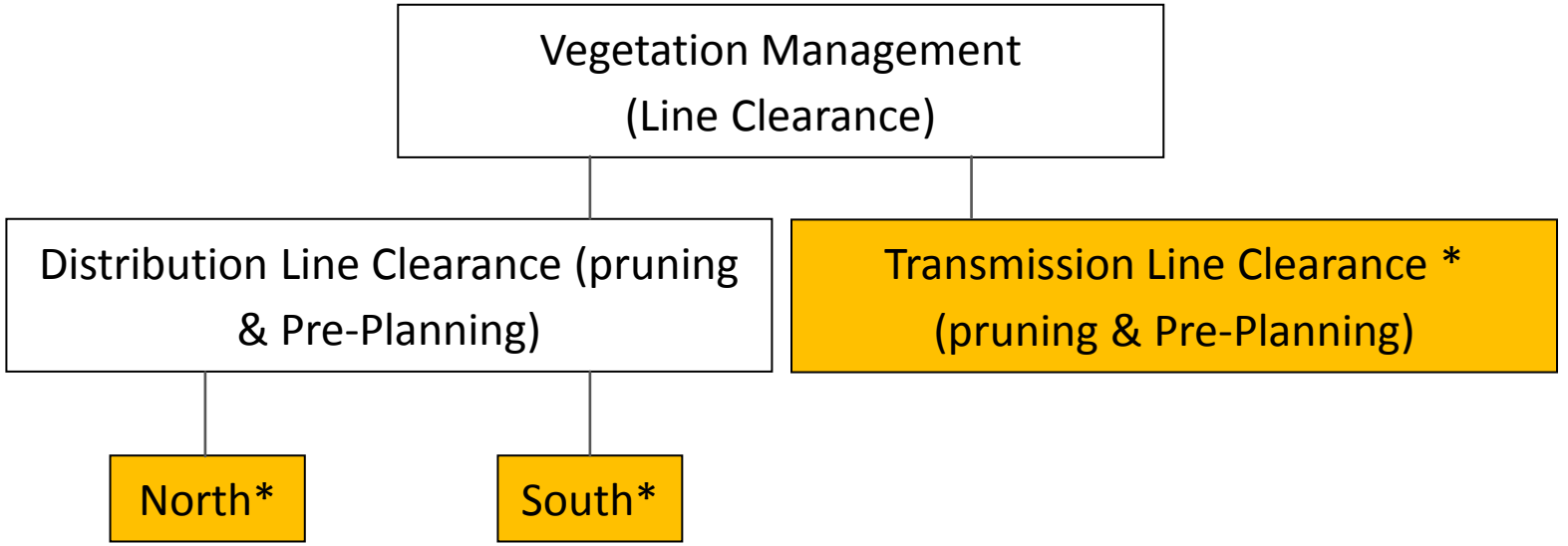
- **SIMPLIFY**:
  - Benchmark best customer notification practices with other utilities
  - Reduce steps that require multiple vehicle trips to properties and multiple attempts to reach property owners
  - Examine surveys to determine customer priorities for improving communications
  - For properties that do not require a tree removal, eliminate property owner sign-off on vegetation work plan
- **IMPROVE**:
  - Conduct multi-channel customer communications – pruning schedule on website, door hangers and mail
  - **Continue providing detailed vegetative work plan**
  - **Continue Customer Refusal Process when Customer Consultation unsuccessful**
  - Reduce lead time between initial customer notification and performance of work
    - Current lead time is between 30 and 60 days (the disinterested customer drives the schedule)
    - Reduce lead time to 10 to 14 days
  - Focus attention on property owners who request Customer Consultation
  - Kick-off communication plan that includes Public Service Announcements

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Line Clearance Contract Approach

Austin Energy - Vegetation Management Contracts

Current Contracts

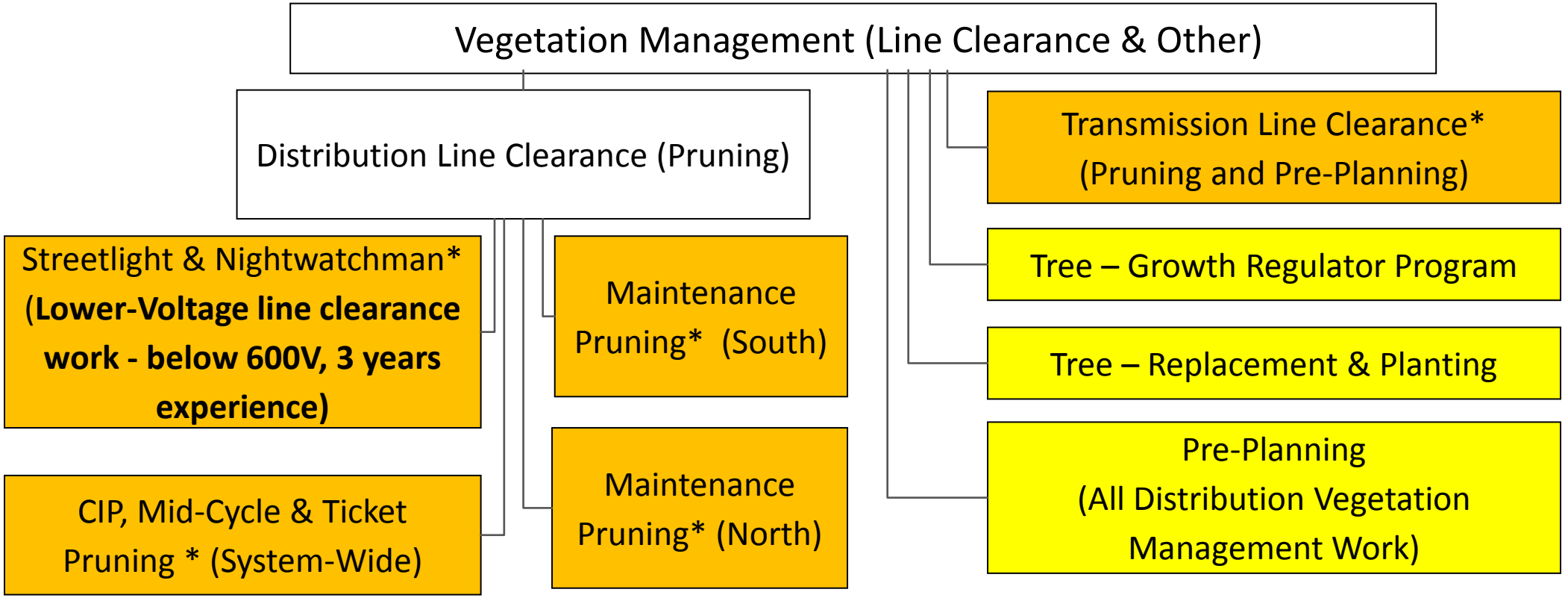


*Energized Line Clearance Work

Current Contracts -

Austin Energy – Vegetation Management Contracts

Planned Contract Strategy & Opportunities



*Energized Line Clearance Work

Contracts – shown in color

Austin Energy - Vegetation Management

SUMMATION

- **IMPLEMENT** new tree pruning **CLEARANCES**
- **IMPROVE COMMUNICATIONS** with Customers
  - Broader and more timely communication of tree pruning schedule and plans
  - Focus attention on property owners who request Customer Consultations
  - Provide Public Service Announcements
- **IMPROVE PROCESSES** by reducing lead time and multiple vehicle trips
- **IMPLEMENT PLANNED CONTRACT STRATEGY** by adding contracts for services requiring varying types and levels of experience
  - RCA in June for one-year extension of Distribution Line Clearance contracts
  - Develop and issue solicitations, including experience-building line clearance work, during FY20