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## AGENDA

### **Electric Utility Commission Resource Planning Working Group Kick-Off Meeting**

Date: September 12, 2019

Time: 4:00 pm – 6:00 pm

Location: Town Lake Center, Room 100

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#### **Safety Moment**

**Introductions** (15 minutes)  
**Member List**

Chair

**Resource Planning Introduction** (45 minutes)

VP, Resource Planning

- Aligning Strategic Plans
- 2017 Resolution Goal Update, Resource Plan to 2027
- Resource Planning to 2030
- Concurrent City Planning: Community Climate Plan, Strategic Mobility Plan, City Fleet Electrification
- Resolution Schedule
- Resource Planning Group website [Electric Utility Commission Resource Planning Working Group](https://austinenergy.com/ae/about/reports-and-data-library/generation-resource-planning-update/euc-resource-planning-working-group)  
<https://austinenergy.com/ae/about/reports-and-data-library/generation-resource-planning-update/euc-resource-planning-working-group>

**Electric Utility Commission Resource Planning Working Group Charter** (45 minutes)

Chair

**Closing Remarks** (15 minutes)

Chair

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City of Austin

**Austin Energy**

Town Lake Center • 721 Barton Springs Road • Austin, Texas 78704 - 1145

## Electric Utility Commission (EUC) Resource Planning Working Group

### Members

Cary Ferchill, Chair	EUC Chair
Bob Batlan	Austin Interfaith
Al Braden	350 Austin
Janee Briesemeister	Low Income/Senior Advocate
Todd Davey	Industrial, PIAC
Leo Dielmann	Resource Management Commission (RMC), Chair
Karen Hadden	EUC Commissioner
Tam Hawkins	Greater Austin Black Chamber of Commerce
Marty Hopkins	EUC Vice Chair
Ed Latson	Austin Regional Manufacturers Association
Cyrus Reed	EUC Commissioner, Sierra Club
Luiz Rodriguez	Greater Austin Hispanic Chamber of Commerce
Kaiba White	RMC Vice Chair, Solar Austin

### Meeting Dates & Locations

***All meeting times are 4:00-6:00pm***

September 12 & 26	Town Lake Center Conference Room 100
October 10	Town Lake Center Conference Room 100
October 24	Town Lake Center Conference Room 126
November 7 & 21	Town Lake Center Conference Room 100
December 5 & 19	Town Lake Center Conference Room 100
<i>January 9 &amp; 23 (tentative dates should meetings be required)</i>	<i>Town Lake Center Conference Room 100</i>

### Contact

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# 2019 – 2020 Resource Planning Working Group Kick Off

Erika Bierschbach

Vice President, Energy Market Operations & Resource Planning



September 12, 2019

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# Alignment with City of Austin Strategic Direction

## City of Austin Strategic Direction (SD23)

- Economic Opportunity & Affordability
- Mobility
- Safety
- Health and Environment
- Culture & Lifelong Learning
- Government that works for all

## Austin Energy Strategic Plan

- Financial Health
- Business Excellence
- Environment
- Employee Engagement
- Grid Modernization
- Customer Collaboration

## Resource Planning

- Power Generation
- Demand side management and solar customer programs
- EV charging infrastructure, management of EV system impacts
- Utility and distributed generation capacity and goals
- Utility scale storage



# Resource Planning at Austin Energy

- The result of a multifaceted process that includes a measured system of choices and milestones over time

City Council sets policy and provides direction with advice from stakeholders and Austin Energy

Guiding principles and milestones established through Resource Plan

Staff pursues and implements goals within budget, capital improvement plans, and financial strategies

Request for Council actions sought post competitive purchasing processes

Robust Resource Plan time horizons allow for improving goal paths when markets, technology and regulations change

*City Council requires various approval steps to realize community goals*



# Resource Plan to 2027 Progress (Resolution No. 20170817- 061)

GOAL	Status (6/19)	
55% renewable by 2025 and 65% renewable by 2027	41%	61.7% by 2024
<i>Installed solar capacity of at least 950 MW by 2025 including 200 MW local solar</i>	715 MW	574 MW contracted
Cease operations and begin retirement Decker steam units, assuming ERCOT approval		
<i>Steam Unit 1 after summer peak 2020</i>	On Target	
<i>Steam Unit 2 after summer peak 2021</i>	On Target	
Cease operations of AE's portion of Fayette Power Project, beginning in 2022	On Target	
<i>Create cash reserve fund to support retirement</i>	On Target	
110 MW Local Solar by 2020 and 200 MW by 2025	103 MW	144 MW contracted
<i>Of this, 70 MW customer sited by 2020 and 100 MWs customer sited by 2025</i>	74 MW	On target 2025 goal
<i>Local solar budget</i>	On Target	
Storage		
<i>30 MW of local thermal storage by 2027</i>	19.2 MW	
<i>10 MW of electric storage by 2025</i>	3.45 MW (6 MWh)	<i>inc. grid, comm, resi, V2G</i>



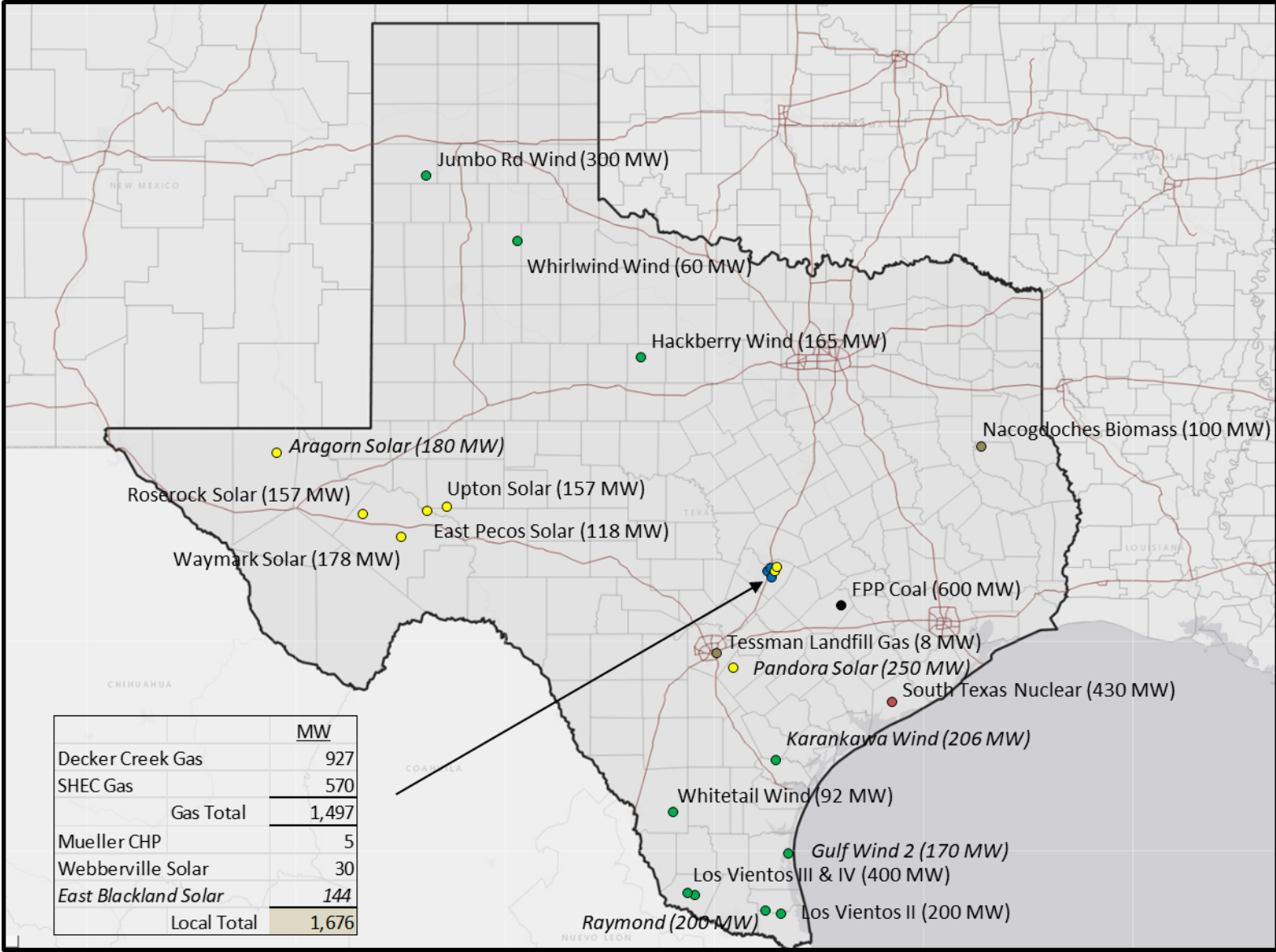
# Resource Plan to 2027 Progress (Resolution No. 20170817- 061)

GOAL	Status (as of 6/19)	
<b>Demand Side Management</b>		
<i>800 MW energy efficiency and demand response by 2020, 900 MW by 2025</i>	<b>812 MW</b>	
<i>Budget 2.5% gross revenue</i>	<b>On Target</b>	
<i>Achieve 1% of energy savings annually</i>	<b>On Target</b>	
<i>20% of DSM budget directed to low income and hard to reach markets</i>	<b>On Target</b>	
<i>5% of the 20% directed to weatherization</i>	<b>On Target</b>	
<b>EV</b>		
<i>8-10 AE owned and operated DC Fast stations by FY18</i>	<b>1 pilot DC Fast</b>	32 DC Fast - TCEQ grant, FY19/20
<i>Enabling electrification of City Fleet's 330 EV's with charging stations by 2020</i>	<b>11 locations (40 ports)</b>	5 phases, 55 locations, 282 ports
<i>Transition 65 AE retired internal combustion engine vehicles to new EVs by 2020</i>	<b>14 AE vehicles</b>	Part of City 330 by 2020 EV Plan
<i>Plug-In Electric Vehicle – modify rebate program encouraging deployment</i>	<b>Completed 6/2018</b>	



# Austin Energy – Asset Map (Contracted & Owned)

- Wind ●
- Solar ●
- Natural Gas ●
- Coal ●
- Nuclear ●
- Biomass ●



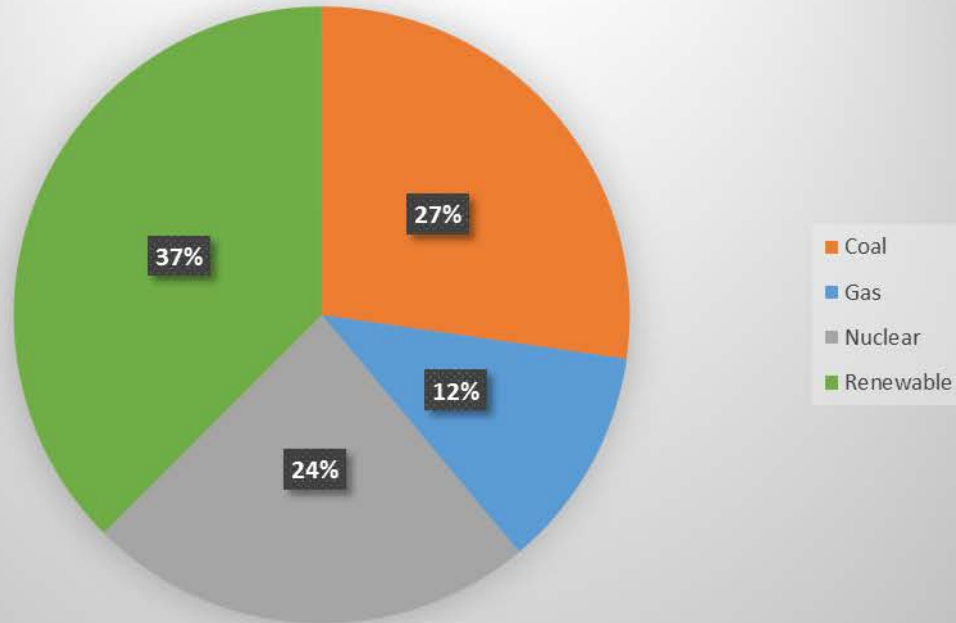
	MW
Decker Creek Gas	927
SHEC Gas	570
<b>Gas Total</b>	<b>1,497</b>
Mueller CHP	5
Webberville Solar	30
East Blackland Solar	144
<b>Local Total</b>	<b>1,676</b>



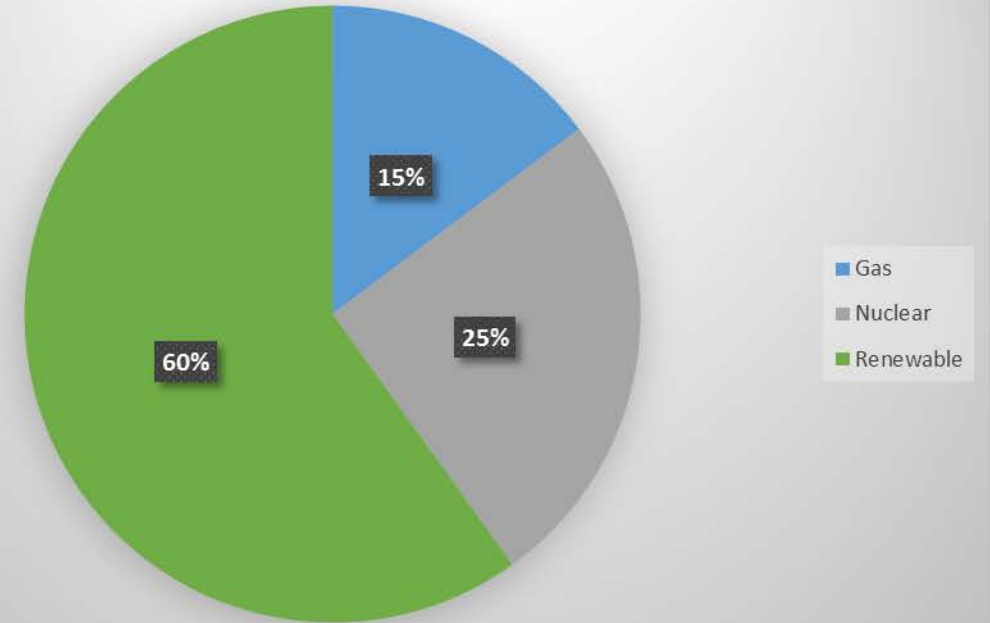


# 85% Carbon Free by 2023

2018 Generation By Fuel Type



2023 Generation By Fuel Type (Projected)



# A Plan Amongst Plans

Buildings and Electrification  
Transportation Electrification  
Transportation and Land Use  
Natural Systems  
Consumption



# 2019 / 2020 City Plans Revision Boundaries

## Community Climate Plan

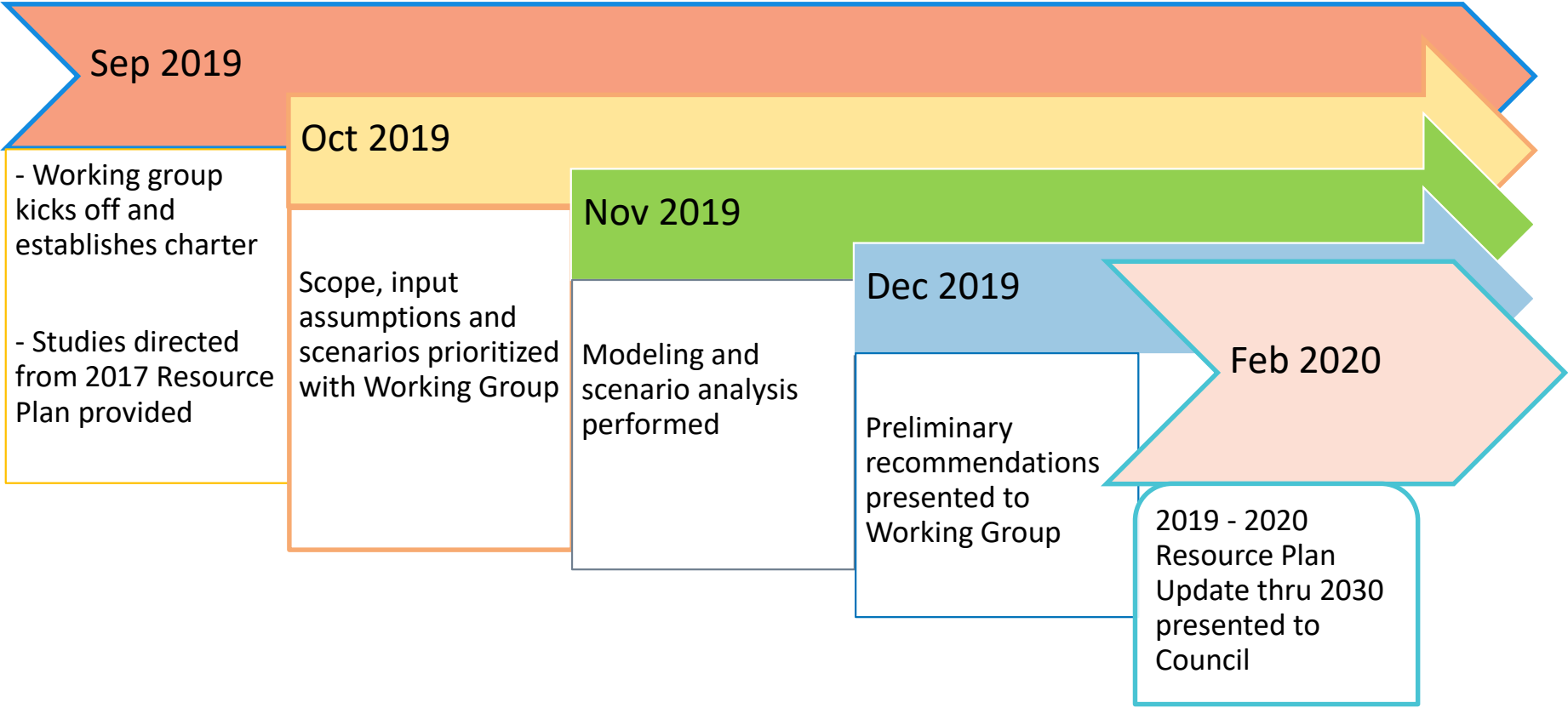
- **Buildings and Electrification**
  - Building Electrification switching from natural gas (heating and water heating)
  - Energy code, net zero emission buildings
- **Transportation Electrification**
  - Community E-VMT goals and EV adoption trends (commercial, residential, transit)
  - Dealer engagement and customer experience
  - Privately managed EV charging stations
  - EV ready building codes
  - Charging station access
  - Shared, Electric, Autonomous Mobility as a service
  - Micro e-mobility
  - EV Parking and station host

## Austin Energy Resource, Generation and Climate Plan

- Power Generation and Utility Scale Storage
- Demand side management and customer programs
- Utility managed EV charging infrastructure
- Distributed generation programs
- Electric Metering and use of meter data
- Distributed energy resource integration (EV, solar, demand response, storage)
- Grid modernization

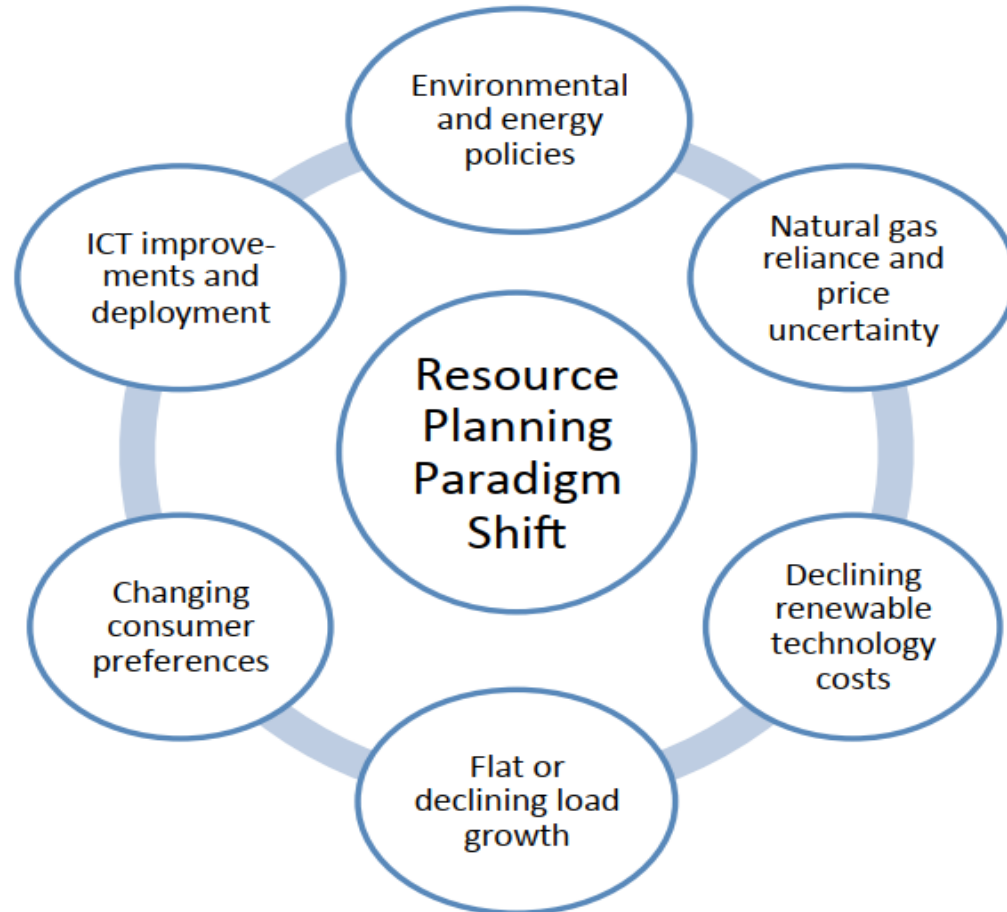


# 2019 - 2020 Resource Planning Refresh Timeline



# Resource Planning Paradigm shift

Six key factors driving major changes in electricity industry and Resource Planning



## 2019 – 2020 Resource Planning Considerations

- Planning Horizon : 2020 – 2030
- Finance Structure: PPA or Ownership
- Incorporating distributed generation in RP
- Uncertainty and Risk Management
- Demand Side Management and impact on RP
- Distributed Energy Resources and impact on RP

# Resource Planning Refresh

## *Methodology*

AE uses integrated modeling tools to simulate market data, load, generation assets and financial data to assess resource plans

- Uses UPLAN simulation modeling well suited to ERCOT's market design, risk analysis using Monte Carlo techniques as well as one-off scenarios
- Inputs include: cost of gas, coal, nuclear, cost of new build of various technologies, fixed and variable O&M for ERCOT generation, ERCOT transmission network
- Calculate cost and revenues of ERCOT assets and pricing at 6,600 node points
- Results modeled for rate impact and financial metrics
- Approach is in line with industry best practice



# 2019 - 2020 Resource Planning Working Group – Structural Representation

- **Working Group members**

- Cary Ferchill – EUC Chair
  - Bob Batlan – Austin Interfaith
  - Al Braden – 350 Austin
  - Janee Briesemeister – Low Income / Senior advocate
  - Todd Davey – Industrial, PIAC
  - Leo Dielmann – RMC Chair
  - Karen Hadden – EUC commissioner
  - Tam Hawkins – Greater Black Chamber of Commerce
  - Marty Hopkins – EUC Vice Chair
  - Ed Latson – Austin Regional Manufacturers Association
  - Cyrus Reed – EUC, Sierra Club
  - Luis Rodriguez - Hispanic Community
  - Kaiba White – RMC Vice Chair, Solar Austin
- Collaborative effort with Austin Energy – scenario analysis, modeling, facilitating
  - Charter with defined objectives and goals
  - Dedicated webpage for Resource Planning





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Community Focused.<sup>SM</sup>**







## 2017 Resource Plan Resolution Studies

Study Category
<b>Renewable Energy</b>
Construct a model achieving 75% and 80% renewable energy by 2027
Construct a model achieving 100% carbon free by 2030
Assess feasibility of achieving 100% renewable energy by 2035
<b>Conventional Generation</b>
Study methane emissions associated with gas production / delivery best practice
Conduct analysis of community economic development impact of AE gen / potential replacements
Conduct analysis of water use by AE generation and its community impact
<b>Local Solar</b>
Study utility managed rooftop solar requiring no investment from customer participants
Study cost / benefit of local solar goal of 250 MW by 2025 and 300 MW by 2027
<b>Emerging Technology &amp; Energy Storage</b>
Study electric storage goal: 50 MW by 2027 and 100 MW by 2027
Study dispatchable renewable, battery storage, CAES, aggregated demand response and V2G
<b>Energy Efficiency &amp; Demand Response</b>
Study achieving 1,000 /1,100 MW energy efficiency by 2027
<b>Electric Vehicles</b>
SHINES to provide value of distributed energy storage, applicability to EV batteries, value streams
Lessons learned and best practice from EV TOU rate pilot



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# DRAFT

## Electric Utility Commission Resource Planning Working Group

### Charter Statement

#### **Mission Statement:**

The Resource Planning Working Group will provide leadership and guidance on technical and market issues to meet environmental, efficiency and affordability goals established by the Austin City Council.

#### **Working Group is committed to:**

- An open and transparent process that represents interests of the Austin community;
- Developing a plan that is realistic, embraces a leadership position for our city and remains affordable for our customers;
- Recommending a Resource, Generation and Climate Protection Plan to 2030 to City Council; and
- Ensuring the plan can be successful in its implementation by Austin Energy through communication and collaboration with utility staff.

#### **Goals and Rules of Working Group:**

- Focus on overarching guiding principles of Affordable renewable energy to achieve net zero carbon by 2050 or sooner.
- Everyone has a voice and are open to other's ideas.
- Committed to moving forward on consensus and resort to voting only when required or desired.
- Citizen's Communication held during the first 15 minutes of the second scheduled meeting each month.
- Agree to utility staff using scenario analysis and risk assessment to screen goal development.
- Resource Plan goals, new and updated, will be developed through a collaborative process between Working Group members and Austin Energy staff.
- Recommend sunset and/or roll-up of conflicting and/or overlapping resolutions or resolutions that do not conform to updated plan.

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