Austin Energy Resource Generation Plan 2035 Workshop #5

Facilitated by Lynda Rife







City of Austin District 2

Residential Customers









Empowering Communities. Changing Lives.



TEXAS COMMUNITIES

Solar and Storage Coalition







HOUSING AUTHORITY OF THE CITY OF AUSTIN **Bringing Opportunity Home**







at the University of Texas at Austin









Greater Austin Hispanic

Chamber of Commerce





L Citizens' Climate Lobby





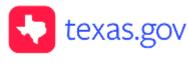




AARP CENTRAL HEALTH



















Homeowners United for Rate Fairness (HURF)





Agenda

- I. Welcome & Introductions
- II. Workshop #4 Report Out
- III. Modeling & Key Takeaways
- IV. Tools in the Toolbox
- V. AEUOC Invitation & Celebration
- VI. Final Thoughts & Closing



Key Takeaways from Workshops #1-#4

- Reliability is the community's top priority.
- Equity continues to be a major theme.
- The impacts of outages can be detrimental to vulnerable communities, especially the medically fragile.
- Decisions made for the Resource, Generation and Climate Protection Plan to 2035 will need to minimize risks and maximize benefits for the ERCOT market.
- Austin Energy is facing a tough balance between all needs. The workshops have been a real eye-opener. Overall, a good process.







Key Takeaways – Dr. Webber

- Austin Energy needs to prepare for an era of unprecedented electricity consumption.
- The challenge before us is to simultaneously expand and decarbonize the grid while the world is warming.
- Austin Energy is uniquely positioned, as a municipally-owned utility, to address load growth because we can
 work on both the supply and demand sides of the equation. Since the service territory is its own load
 zone, Austin Energy can avoid congestion costs by building generation close to where customers need it.
- Do your best, clean up the rest through a combination of efficiency, electrification, clean molecules and carbon management.
- Austin Energy has an opportunity to improve the overall financial health of the utility (and therefore
 provide more benefit to the Austin community and customers).
- The key lens through which energy options should be considered: trade-offs.



Workshop #4 Report Out







Values Statements* – Generally Moving in the Right Direction

Reliability

Providing **consistent** and **predictable** electric service that will power our community **as it continues to grow**.

Affordability

Assessing the **fairness** and **impacts of costs** for customers while continuing to provide the **public-power benefits** that enhance our community's quality of life.

Environmental Sustainability

Maintaining **flexibility** in support of **clean** and **innovative technologies** and programs while taking a **holistic assessment** of the community and environmental impacts.

*Developed based on workshop discussions

Energy Equity

Evaluating and expanding access to the services Austin Energy provides so they can reach those who need them most while understanding the impact of our operations on the community.



Value Statements – What We Heard

- Strengthen words like "understanding" and "assessing" to make the statements more actionable.
- Predictability with both reliability and affordability –
 improve communications to the community.
- Include more references to climate change issues.







Updated Value Statements*

Reliability

Providing consistent and predictable electric service that will power our community as it continues to grow.

Affordability

Assessing the **impacts** and **promoting fairness** of costs for customers while continuing to provide the public-power benefits that enhance our community's quality of life.

Environmental Sustainability

Maintaining flexibility in support of clean and innovative technologies and programs while taking a holistic assessment of the community and environmental impacts.

*Developed based on workshop discussions

Energy Equity

Evaluating and expanding access to the services Austin Energy provides so they can reach those who need them most while reducing any negative impact of our operations on the community.



Objectives* – Generally Moving in the Right Direction

Reliability

Prioritize reliability and resilience over other values. Mitigate the risk of statewide and localized system outage events. Limit the exposure of vulnerable populations to outages.

Affordability

Limit the impact of bill increases to the most vulnerable customers, while allowing acceptable increases of greater than 2% for other customers and maintaining supportable levels of reliability and environmental sustainability.

Environmental Sustainability

Reduce emissions as much as possible and mitigate any remaining emissions, while supporting affordability and reliability.



^{*}Developed based on workshop discussions

Objectives – What We Heard

- Use "prioritize reliability" but don't agree that reliability and resiliency are over other values.
- Be careful that we aren't promising 100% reliability. Short-duration outages might be okay.
- Look at bill impacts today as well as in the future.
- When looking at affordability, consider the fees associated with disconnections, or late payments.
- Clarify the language of "maintaining supportable levels".
- Expand "emissions" to include other environmental pollutants or environmental impacts.
- Expand "environmental sustainability" to include "resource conservation".
- Take into account life cycle assessments and full transparency.
- Not sure what "mitigate remaining emissions means".







Updated Objectives*

Reliability

Prioritize reliability and resilience over other values. Mitigate the risk of long-duration statewide and localized system outage events and provide timely communications. Limit the exposure of vulnerable populations to outages.

Affordability

Limit the impact of bill increases to the most vulnerable customers, while allowing acceptable and predictable increases of greater than 2% for other customers and maintaining supportable levels in support of reliability and environmental sustainability.

Environmental Sustainability

Reduce emissions and other environmental impacts as much as possible. and mitigate Mitigate any remaining emissions, while supporting affordability and reliability.



^{*}Developed based on workshop discussions

Building a Bridge to Our Energy Future



Mission for the 2035 Plan

We must meet Austin's rising energy needs while enabling an equitable clean energy transition reflecting our community's values of reliability, affordability and environmental sustainability.



Current-Day Risks

The problems we need to solve are immediate

Growth in population and energy consumption

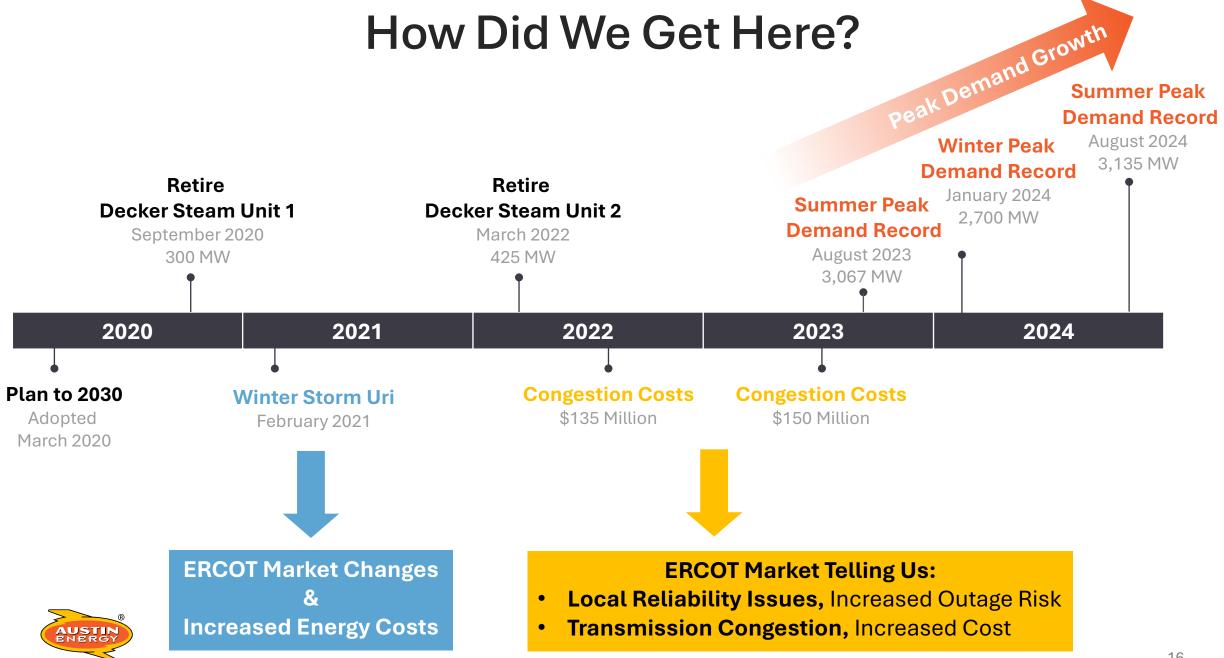
ERCOT market changes and increasing costs

Increases in extreme weather and climate risk

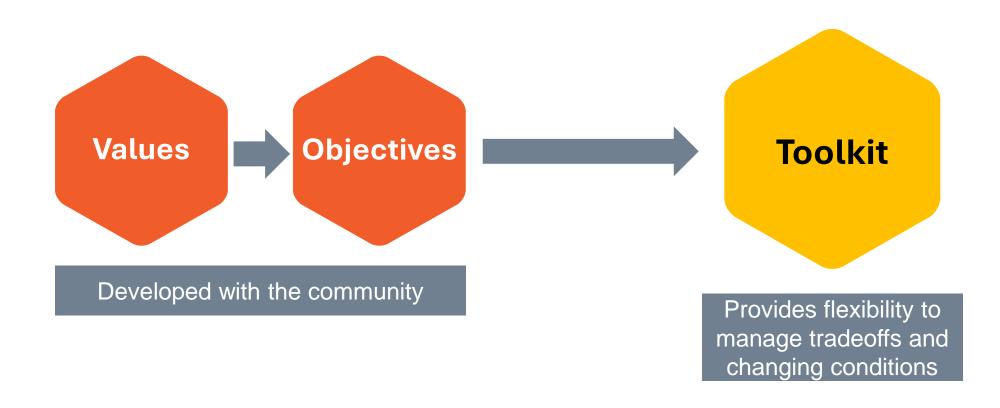
Transmission
congestion and
volatile pricing to
import energy into
the service area

Replacing local power generation lost from plant retirements





Developing the 2035 Plan



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Effective policy design keeps **tradeoffs** in mind and is **outcomes based**, rather than prescriptive. - *Observations from Dr. Michael E. Webber*

Our Responsibility

Austin Energy must adapt to a changing energy landscape to expand achievements of previous resource generation plans and further our mission to safely deliver clean, affordable, reliable energy and excellent customer service.







Portfolio #5 - Meet Environment Goals + Expand DSM



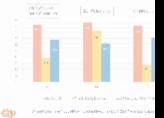
P14-18-19 Reliability Risk Hours - Normal Conditions

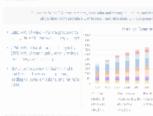


AUSTIN ENERGY



Reliability Risk Hours - Ascend







So many models,

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P14-18-19 Tradeoffs - Normal Con-

so much data, so many hours . . .

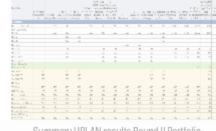
to understand

tradeoffs and

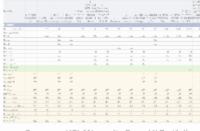
resource plan needs







2035 Modeled Installed Capacity



Summary UPLAN results Round II Portfolio







20-year NPV of Net Cost - All Portfolios



Modeled Austin Energy Stack Emissions

Stress Test Results - Liquidity Risk







Key Insights

What we've learned along the way

Doing Nothing is Not an Option – Investment is Needed

Maximize Potential for Energy Efficiency and Demand Response

Increased Transmission Capacity Helps, but Elements are Outside Our Control

Utility-Scale Batteries Support in Short-Duration Events

Smaller, Natural Gas Units – Used When Energy Demand is High



Stay Focused on Emerging and Evolving Technologies

Adding Tools to the Toolbox





Managing "Our Toolkit"

Prioritize
Customer Energy
Solutions

Leverage Local Solutions



Achieve Decarbonization

Foster a Culture of Innovation



Managing "Our Toolkit"

Working Examples

Prioritize Customer Energy Solutions

- Energy Efficiency
- Demand Response
- Customer Sited Solar & Batteries

Leverage Local Solutions

- Local Solar
- Utility Scale Batteries
- Natural Gas Peaker Units

Achieve Decarbonization

- Carbon Free by 2035
- Exit Coal
- Remote Wind & Solar

Foster a Culture of Innovation

- Geothermal
- Advanced Nuclear
- Carbon Capture



You're Invited!



What: Attend the Austin Energy Utility Oversight Committee (AEUOC) meeting to be honored and recognized by City Council for your great work as a participant in the workshops.

When: Tuesday, Nov. 19 at 9 a.m.

Where: Austin City Hall, 301 W. 2nd St. Austin, TX 78701

There will be treats!



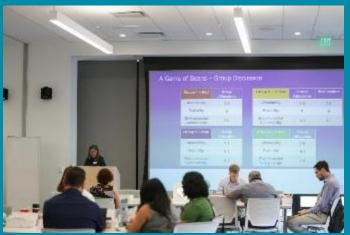
Final Thoughts & Closing



Partnership Continues

- Inform and educate the organization and communities you represent of what you've learned and the work you've done in these workshops.
- Reach out if there are events that you would like Austin Energy to attend.
- Provide comments to the Electric Utility Commission (EUC) and City Council.
- Austin Energy will keep workshop participants updated regarding the Resource Generation Plan 2035 development process.







Final Q&A



Thank You!

