



Repowering Downtown Project

Austin Energy
Utility Oversight Committee Meeting
October 16, 2017





Downtown Then and Now



Downtown Skyline 2000



Downtown Skyline in 2017



Downtown Customers

- Residential Customers
 - 15,000 - Population of Downtown Residents
 - 946 - Condo Units Under Construction
 - 3,297- Condo Units Built Downtown Since 2000
 - 634 - Apartment Units Under Construction
 - 5,398 - Apartment Units Built Since 2000
- Commercial Customers
 - 86,226 - Downtown Employees
 - 9 Million - Square Feet of Multi-tenant Office Space
 - 955,571 SF - Office Space Recently Completed (879,571 Multi-tenant)
 - 1,601,500 SF - Office Space Under Construction (1,151,500 SF Multi-tenant)

Source: Downtown Austin Alliance



Downtown Network



The
Downtown
Network
Serves a
Critical Part
of Austin

Safe, Highly Reliable, Fully Redundant, Resilient, Efficient, Compact, Low Visibility



Repowering Downtown Project

Increase
Distribution
Tie Circuits

Add 70 MVA
Transformer
to Seaholm
Substation

Build New
Downtown
Substation

Rebuild
Brackenridge
Substation

Upgrade
Network
Distribution
Feeder
Circuits

Convert
69kV
Transmission
Lines to
138kV

\$60M over the next 6 years



Strategic & Council Alignment

- **Strategic Direction** – Provides economic opportunity through safe, quality, and reliable utilities
- **Downtown Austin Plan** – Follows plan identifying new substation in Rainey Street District; supports goal of adequate infrastructure, utilities for vibrant downtown
- **Imagine Austin** – Promotes compact and efficient city that connects people
- **Austin Energy Strategic Plan** – Grid Modernization, Customer Collaboration, Financial Health



Rainey Street Development

The Rainey Street Sub-district of the Waterfront Overlay District report Sept. 17, 2004:

Electric

To support new, higher density development, a new electric substation must be constructed in the area. The estimated cost of a new substation adequate to serve redevelopment in the area is approximately \$13 million dollars. Austin Energy owns a tract of land between East Avenue, Lambie Street and IH 35, immediately adjacent to the transmission circuit carrying power from the Pedernales Substation on the Holly Plant property to the Seaholm Substation adjacent to the Seaholm Plant. Without the construction of a new substation, Austin Energy cannot maintain adequate service for redevelopment of the Rainey Street area. The distribution



Proposed New Substation



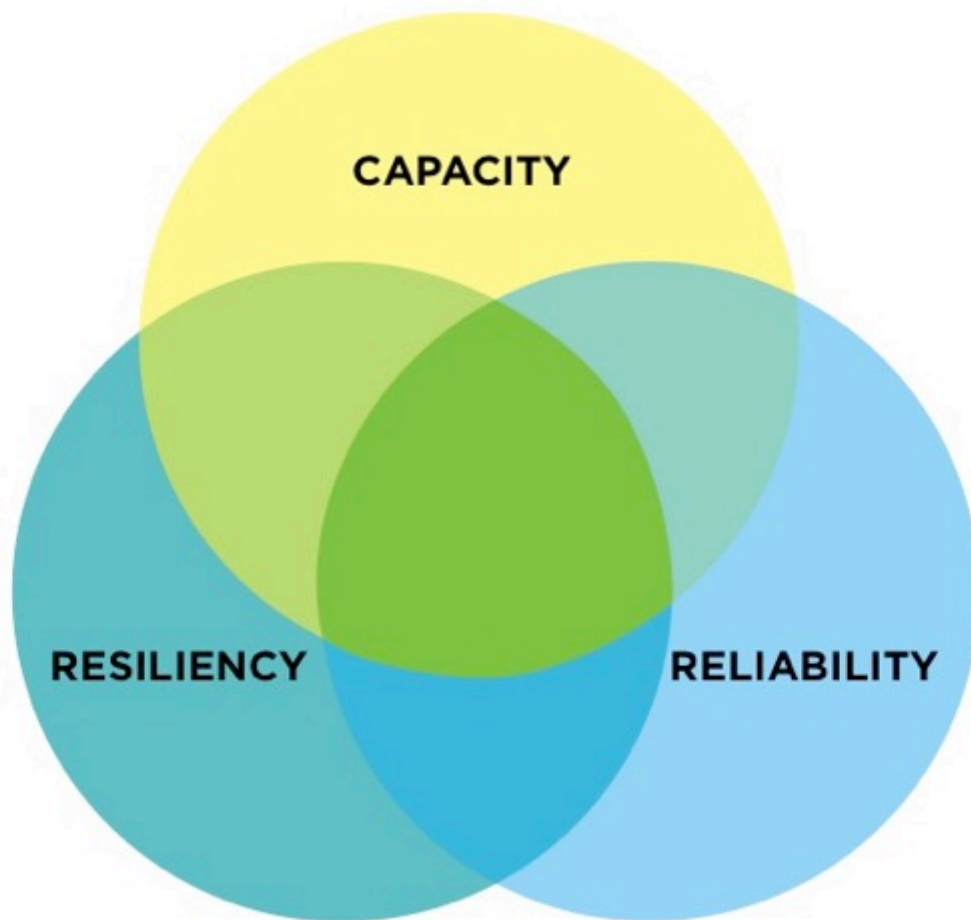
Proposed
New Substation
55 East Ave.



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New Substation Drivers





Capacity Drivers

- Waller Creek redevelopment
- U.M.C. Brackenridge redevelopment
- Medical District, Capitol Complex expansion
- A.P.D., Palm School, Municipal Court sites
- Convention Center expansion, Block 87
- 37-story Fairmont, 33-story Mirabeau
- 1.4 million sq. ft. Waller Park Plaza
- Villas of Town Lake site redevelopment
- Rainey Street District development
- South Central Waterfront



Site Selection Drivers

Proposed site meets the following key criteria:

- Geographically located to meet electrical requirements
- Accessibility to existing Transmission and Distribution Circuits
- Low impact to downtown residents and businesses
- Avoid need for eminent domain
- Utilization of existing COA property
- Highest and Best Use of City property to serve the City of Austin due to its proximity to IH35 and TXDOT's proposed service road widening
- Specifically purchased for this purpose





New Substation – Smart Substation

- Gas Insulated Switchgear (GIS) Substation for reduced footprint
- Cut into the existing Seaholm-Pedernales 138kV Transmission Circuit on property
- Sustainable design utilizing LEDs, solar, security, and smart technologies
- Engage citizens, stakeholders, boards and commissions in design
- Design to reflect values and culture of Austin and community
- Electrical Energy Storage capable





Milestones & Next Steps

High Level Milestones:

- Council, Stakeholder, and Public Communication – Fall 2017
- Contract with Design & Communication Consultant – Winter 2017
- Install 3rd 70MVA transformer at Seaholm Substation - Winter 2018
- Engineering – Winter 2017 to Summer 2019
- Construction – Summer 2019 to Summer 2020
- Construction and Community Involvement Complete – Summer 2020
- Rebuild Brackenridge Substation – Summer 2020 to Summer 2022



QUESTIONS?



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District Cooling Plant #3 Crescent Tract

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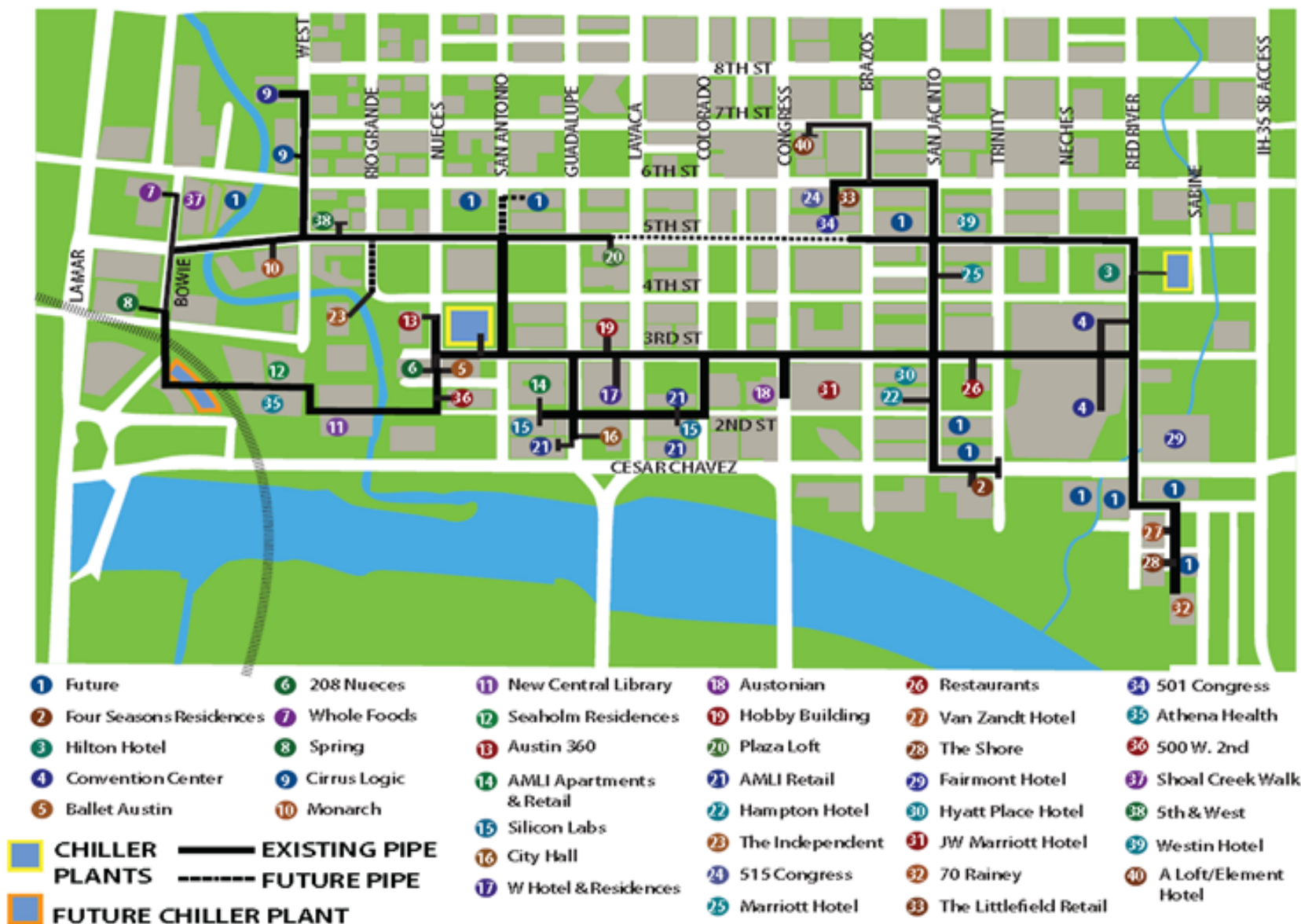
District Cooling Program



- An underground network of pipes providing chilled water to meet cooling requirements of multiple buildings.
- Aggregation of loads enables superior efficiencies, reliability and quality when compared to stand alone systems.
- Thermal storage element drives electric demand management toward 30MW goal.

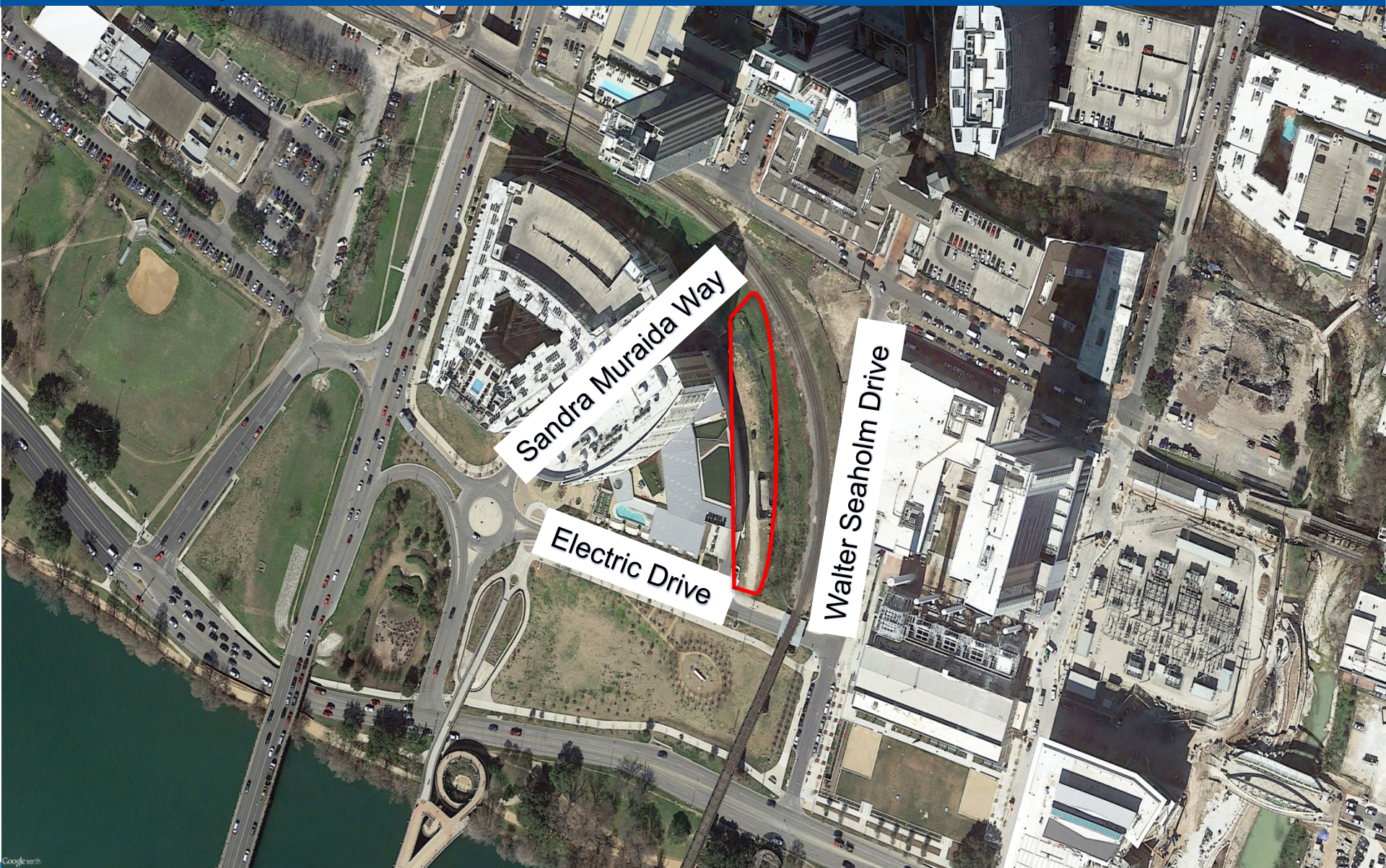


Downtown District Cooling





District Cooling Plant #3 Project Site





View from Electric Drive





View from Trader Joe's





View from Third Street





Art In Public Places





QUESTIONS?



**Jim Collins, Director
On-Site Energy Resources**