



Repowering Downtown Austin





Downtown Then and Now



Downtown Skyline 2000



Downtown Skyline in 2018



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

Source: Downtown Austin Alliance



Downtown Customers

- 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

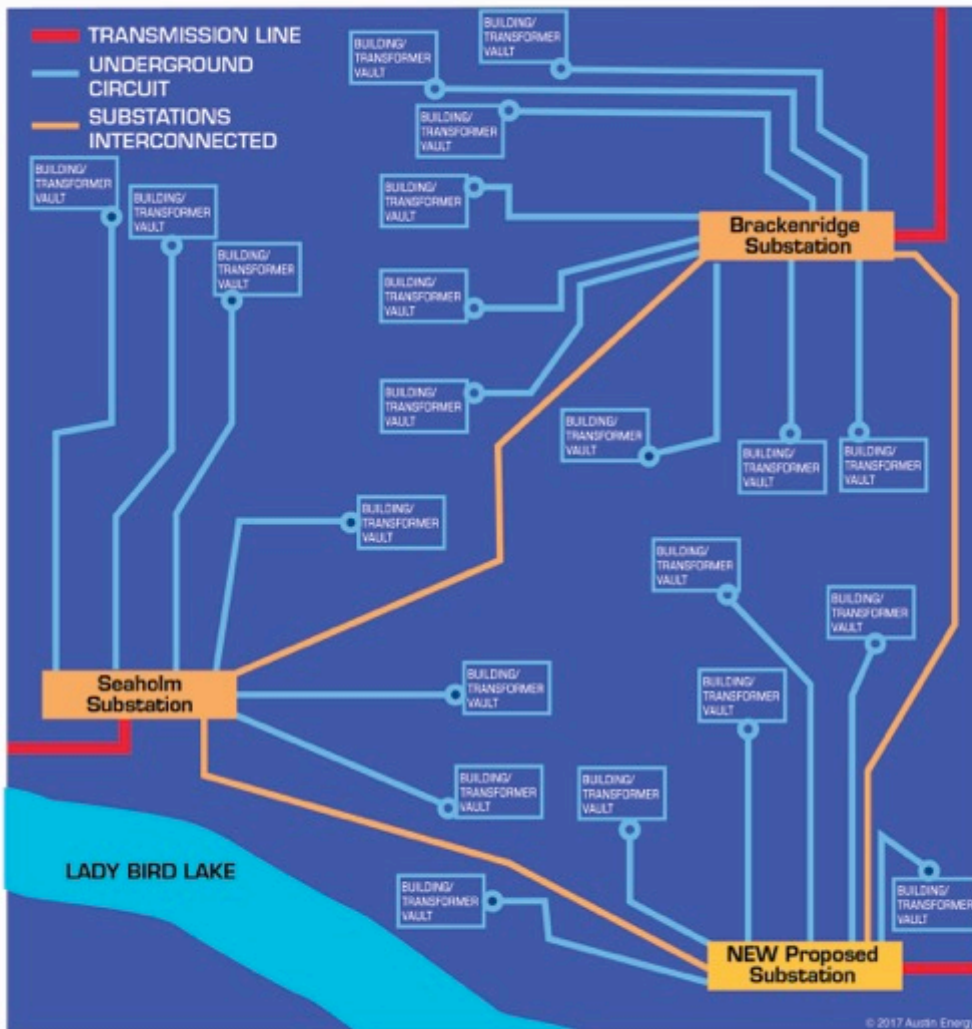


The
Downtown
Network
Serves a
Critical Part
of Austin

Safe, Extremely High Reliability, and Fully Redundant, Low Visibility



Downtown Network



A Network Efficiently Serves a Compact Area

DOWNTOWN VAULT





Downtown Network Substations



Brackenridge Substation



Seaholm Substation



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

Total cost of \$60M over the next 6 years



Aligns with Council Policies

- **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



Aligns with Council Policies

- In conjunction with the 2004/2005 rezoning of the Rainey Street Subdistrict to CBD to encourage dense development, a City of Austin report noted:

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 feeders serving this area are all overhead lines built along the streets and back lot lines or alleys. For more information, contact Judy Fowler, Austin Energy (AE), (512) 322-6107, judy.fowler@ci.austin.tx.us



Proposed New Substation



Proposed
New Substation
55 East Ave.



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Proposed New Substation



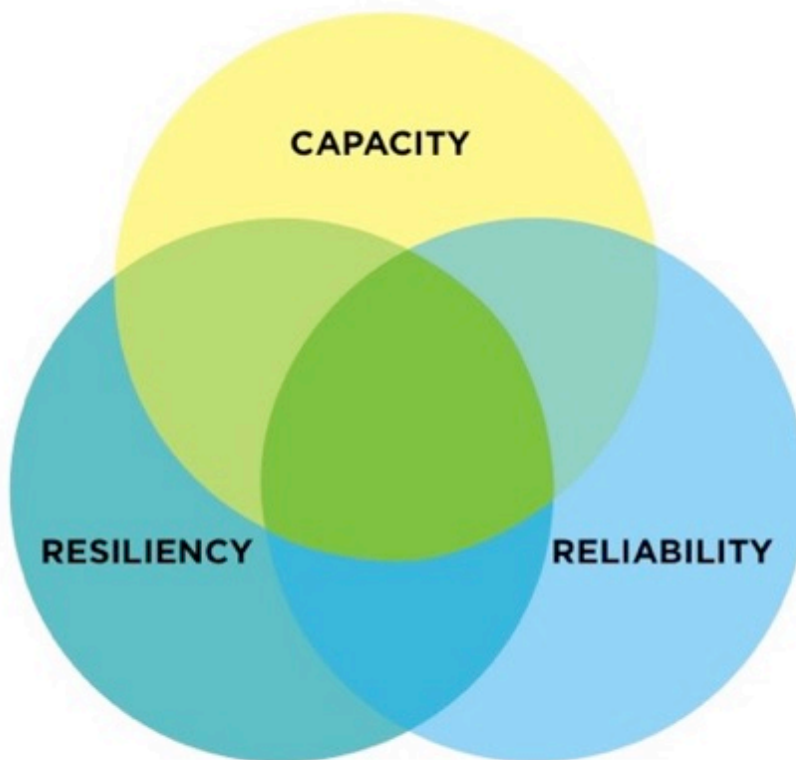


Proposed New Substation





New Substation Drivers

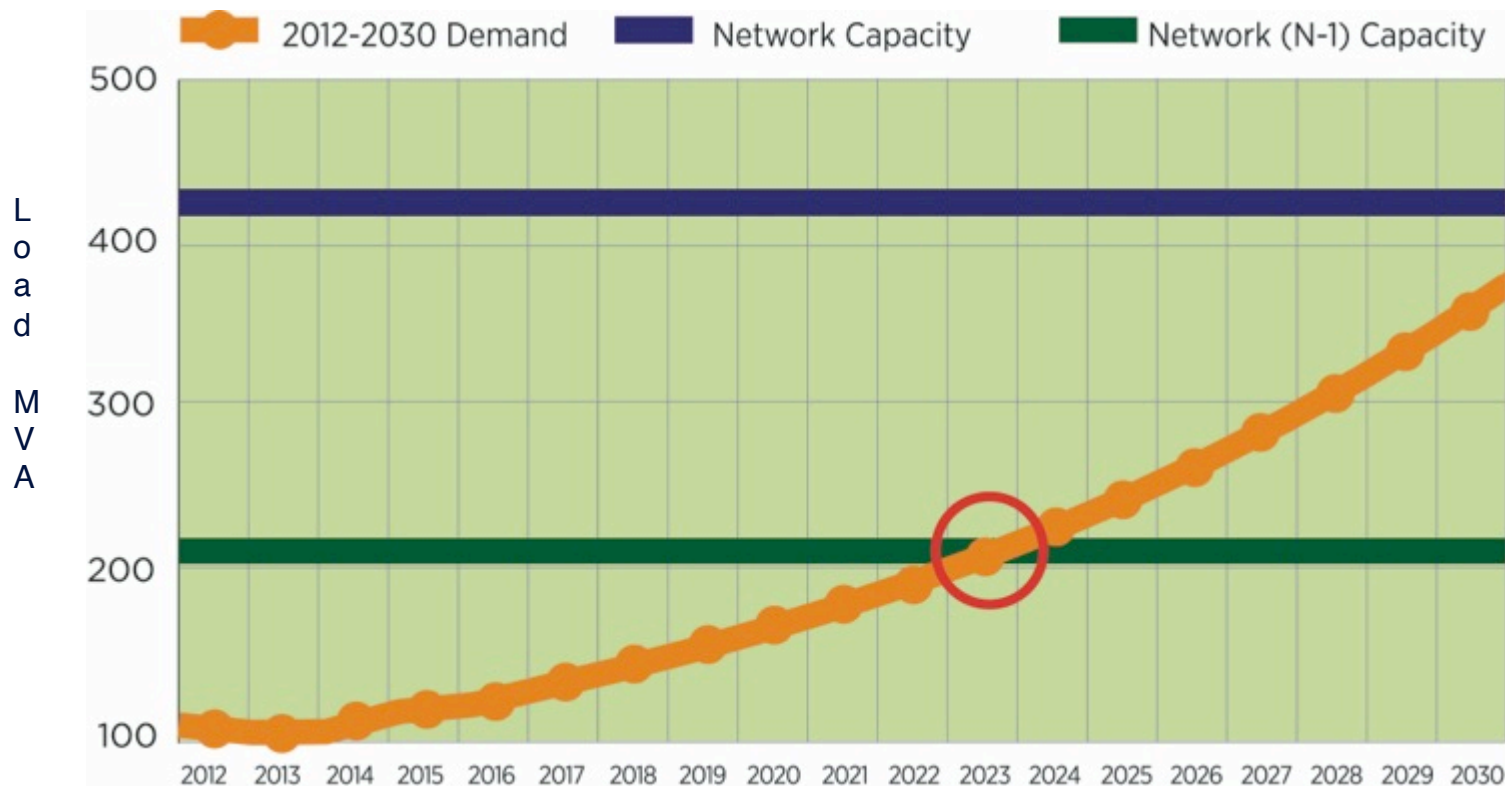


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New Substation Drivers

- Capacity – Load Growth
 - New Central Business District development and anticipated redevelopment along the Waller Creek area
 - Existing Seaholm and Brackenridge substations will not support the anticipated demand and load growth





Capacity Drivers – New Development

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



Alternatives Considered

- Rebuild Brackenridge with increased capacity in new location
 - Unable to secure alternate suitable site
 - Cable tie limitations
 - Limited reliability in case of loss of substation
- Increase Seaholm capacity to serve anticipated demand
 - Short-term solution (2022)
 - Cable tie limitations
 - Limited reliability in case of loss of substation



Alternatives Considered

- Build new Downtown Substation large enough to serve anticipated demand
 - Cable tie limitations
 - Limited reliability in case of loss of substation
- Distributed Energy Resources/Demand Response/Energy Efficiency
 - Technically and economically not feasible due to limited rooftops capacity, significant battery storage requirements
- Alternative Sites
 - Limited by accessibility, geographically, and availability of properties



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





Site Selection Drivers

- Utilization of existing City of Austin property
- Highest and best use of City property to serve the City of Austin due to its proximity to IH-35 and TxDOT's proposed service road widening
- Specifically purchased for this purpose



Smart Substation for a Smart City





Smart Substation for a Smart City

- Exceed sustainability standards for project
- Exceed design criteria requirements
- Decrease substation footprint
- Involve citizens, stakeholders, boards and commissions in design of project
- Design to reflect values and culture of Austin and community



Smart Substation for a Smart City

- Provide interoperable infrastructure to leverage Distributed Energy Resources and Load Control
- Electrical Energy Storage capable
- LED, solar, security, and communication smart technologies
- Incorporate smart charging devices
- Enabling a Smart City and Smart Transportation future in Austin



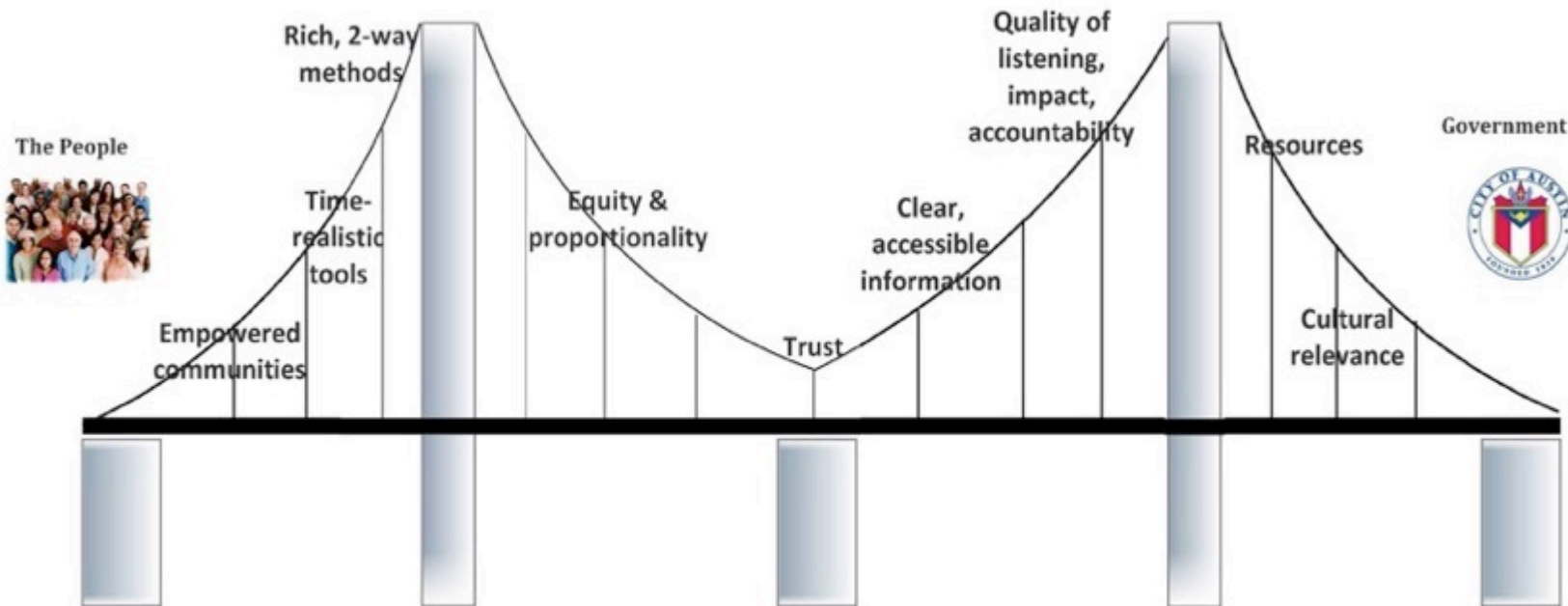
New Substation Cost & Schedule

New Substation Costs: \$26M

Key Milestones:

- Brief Mayor – June 2017
- CMO/Council Member Communication – July 2017
- Media & Website Release, Sign & RFQ Issued – July/August 2017
- RFQ – Engineering Consultant on Board – Winter 2017
- 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

Key Elements of Effective Community Engagement



Purpose:
 Quality public engagement offers opportunities for all voices to be heard and respected,
 which leads to better representation of the community,
 which in turn results in better decisions and policies



Community Engagement Process

- Hire community engagement contractor
- Follow City of Austin Community Engagement Task Force process model
- Partner with stakeholders to develop and implement community engagement
- Ensure all voices are heard and stakeholders have impact on decisions



Next Steps

- Stakeholder Communication
- Contract with Design & Communication Consultant (\$1M)
- Install 3rd 70MVA transformer at Seaholm (\$3M)



Contact Us

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