



Tucson Electric Power

Midtown Reliability Project
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Energy Grid Update Midtown Reliability Project

September 2023



TEP Begins New Review for Urgently Needed Upgrades in Central Tucson

Tucson Electric Power (TEP) is helping Tucson thrive by building a stronger, smarter grid that supports our community's growth, facilitates additional use of clean energy resources and improves reliability during extreme weather conditions.

The TEP Midtown Reliability Project will support these efforts by reinforcing systems that ensure electric reliability in the heart of Tucson, giving midtown residents the same reliability benefits that residents of other areas already enjoy as the result of comparable improvements.

The project will replace older, lower-voltage equipment that cannot keep pace with the increasing energy use in central Tucson, an area that includes historic neighborhoods, popular business districts and the University of Arizona campus. Peak power demand in the area has nearly reached the capacity of the older equipment, reducing electric reliability and leading to longer power outages on some circuits.

Components include:

- A new transmission line and substation that connect midtown neighborhoods to TEP's modern 138-kilovolt (kV) system, more than tripling electric capacity in the area.
- Significant investments in distribution systems that link customers' homes and

businesses to the local energy grid.

- Retirement and removal of old equipment, including eight substations and 19 miles of power lines throughout central Tucson, helping keep power bills lower.

Because these upgrades are urgently needed to maintain reliable service, TEP plans to complete construction of the transmission line and substation by the summer of 2027.

Project Need

TEP's 46-kV system was designed to serve the energy needs of homes and businesses built in the mid to late 20th century. While many of those buildings remain the same, particularly in central Tucson, their energy use has escalated significantly with a growing population, the use of air conditioning rather than evaporative cooling and greatly expanded use of electronic devices.

Some transformers providing service in central Tucson are more than 50 years old, while other elements are even older. Upgrades are critical because some of this equipment is rated as being in 'poor' or 'very poor' condition, creating a greater risk of outages. Simply replacing that equipment would be expensive and ineffective, and would not address the need for additional capacity.

Current Status

In July 2023, TEP defined the Midtown Reliability Project study area boundaries as just north of Fort Lowell Road on the north, just west of Interstate 10 and South Fourth Avenue on the west, just south of East 36th Street on the south and just east of Country Club Road on the east. Please see the map shown inside.

Specific route segments for the proposed transmission line have not been developed at this time.

TEP has begun a new review of all potential routes for the line, including those previously excluded from consideration as part of the Kino-DeMoss Petrie (DMP) Transmission Line Project.

Help Guide Central Tucson's Energy Future

Although Arizona law defines the criteria that must be considered when evaluating potential transmission line routes, TEP also wants to hear about other issues and concerns from customers and other stakeholders. TEP will use all these criteria to compare potential transmission line routes and assess their compatibility with the environment and the preferences expressed by stakeholders.

What criteria are most important to you? Please let us know by participating in a brief online survey available on our project webpage.

Midtown Reliability Project



Please Join Us Public Open House

Thursday, Sept. 21 | 6-8 p.m.

DoubleTree by Hilton Hotel Tucson - Reid Park
445 S Alvernon Way
Tucson, AZ 85711

tep.com/midtown-reliability-project



Greater capacity for growing energy needs

Planned transmission facilities in the Midtown Reliability Project will provide more than three times the capacity of today's nearly overloaded systems - enough to meet central Tucson's day-to-day energy needs for a lifetime.

Benefits

The Midtown Reliability Project will close a gap in our local energy grid's transmission network. Benefits include:

Shorter, less frequent power outages. The project will complete a 138-kV "loop" around central Tucson allowing TEP to supply energy from more than one direction to substations that support service to residents, business owners, community organizations, service providers and other customers in central Tucson.

Greater capacity for growing energy needs. New 138-kV transmission facilities will provide more than three times the capacity of the current system, enough to meet our community's day-to-day energy needs for a lifetime.

Aging 4-kV facilities will be replaced with new 13.8-kV distribution lines, poles, transformers and switchgear – improvements that depend upon the construction of new 138-kV transmission facilities.

More customer-owned solar and storage. Transmission and distribution improvements will allow customers in the area to continue adding rooftop solar panels, private battery storage systems and electric vehicles. Currently, some central Tucson neighborhoods are nearing capacity for solar interconnections.

Comparable cost, greater efficiency. Completion of the new, higher-capacity transmission line and associated improvements would allow TEP to retire up to eight 46-kV substations and associated facilities within 10 years, avoiding approximately \$42 million in replacement costs for facilities in need of replacement today. Additional 46-kV facilities could be retired in the near future, avoiding significant additional replacement costs and impacts.

Improved service citywide. The Midtown Reliability Project will reduce the strain on TEP's remaining 46-kV system, helping to avoid overloads in other parts of town.

Support for economic growth and a healthy community. Additional energy capacity will support anticipated increases in job and population density that the City expects. The project will also upgrade service to the University of Arizona, Tucson's largest employer, and Banner - University Medical Center's Tucson campus and emergency room, each of which provides services and benefits for our entire community and supports a growing economy.

Learn More

Please visit our project web page at tep.com/midtown-reliability-project for more information including:



- A detailed, interactive map
- Design options for the transmission line, including the potential use of shorter poles in some areas
- Details about why interconnecting 138-kV substations to remote energy resources is crucial for reliable service
- Required regulatory and zoning approvals
- Details about the proposed Vine Substation

Public Participation

Please come to our open house on September 21 and participate in the survey described in this newsletter. TEP is also reaching out to all individual neighborhoods within the study area for input.

Residents, property owners, businesses and others also can ask questions and submit general comments about the project by:

- Filling out an online comment form on the project webpage
- Sending email comments to midtownreliability@tep.com
- Calling 1-833-523-0887 and leaving a voicemail message
- Mailing a letter with comments to:
TEP Midtown Reliability
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El Proyecto Midtown Reliability de Tucson Electric Power fortalecerá los sistemas que garantizan la fiabilidad eléctrica en el centro de Tucson, proporcionando a los residentes del área central de la ciudad los mismos beneficios de fiabilidad que ya disfrutaban los residentes de otras áreas. Estas mejoras incluyen una nueva línea de transmisión, una nueva subestación e inversiones significativas en sistemas de distribución que vinculan los hogares y las empresas de los clientes con nuestra red energética local. TEP anima a los clientes y a otras partes interesadas en el área de estudio del proyecto a asistir a la jornada de puertas abiertas y a participar en la encuesta descrita en este boletín informativo. Visite el sitio web del Proyecto para ver un mapa interactivo y más información. Si tiene preguntas, llámenos al 1-833-523-0887. Gracias por su interés en el proyecto.