

Investing in Resilience and Reliability

Tucson Electric Power has invested nearly \$1.7 billion since 2021 to upgrade and reinforce our local energy grid.

That's a big number. But all those investments are necessary to support a complex system that spans 1,155 square miles and serves more than 442,000 customers. Our grid requires ongoing maintenance and upgrades to approximately 5,100 miles of transmission and distribution lines, more than 4,300 miles of underground distribution lines, more than 107,000 poles and transmission structures, and more than 120 substations.

We need a balanced mix of energy generation options, including natural gas, wind, solar, and storage to complement our remaining coal-fired resources and power purchased from others. We also need robust, redundant ways to get that energy to our customers. That means we're investing in high-voltage transmission systems that carry energy over long distances as well as in low-voltage distribution systems that serve local homes and businesses. That translates into a lot of power lines, poles, transformers, substations and other assets.

Here's a quick look at just a few examples.

Substations



TEP has more than 120 of these facilities, which house equipment to control and monitor electricity flow.

- Average cost: \$25 million - \$30 million

Fleet

TEP has about 1,100 vehicles used by employees in power plant operations, substation maintenance, metering, relay/communications and other areas. Our fleet includes about 115 specialty vehicles for line construction work, including bucket trucks, cranes and diggers. Average cost:

- 88' bucket, for transmission work – \$550,000



- 50'-60' bucket, for distribution work – \$300,000
- 40' bucket, for our first response Troublemens – \$249,000



Poles

TEP has more than 107,000 power poles. Purchase and installation:

- Distribution, 40'-55' Steel Pole: Avg. \$18k-\$20k
- Transmission, 60'-75' Steel Pole: Avg. \$35k-40k

Substation transformer



Converts electric voltage for long-distance transmission or for local customer use.

Cost on average:

- Distribution Substation Transformer – \$2 million
- Transmission Substation Transformer – \$5 million

Large energy systems



Roadrunner Reserve, a battery energy storage system that can serve 42,000 customers for four hours, is our latest large-scale project. Cost: Nearly \$350 million. Learn more about other community-scale projects.