



UTILITIES

User

Central Electric Power Cooperative, an electric generation and transmission cooperative in central Missouri

Challenge

CEPC needed to improve field efficiencies for servicing, inspecting, and maintaining its 1,555-mile-long network across 22,000 square miles.

Solution

[ArcGIS® Online](#), [Collector for ArcGIS](#), [Navigator for ArcGIS](#), [Survey123 for ArcGIS](#), [ArcGIS Pro](#)

Results

Having access to authoritative data and maps of the entire network enabled field and office staff to use the same information, resulting in a dramatic improvement in field efficiency.

Utility Focuses on Field Mobility

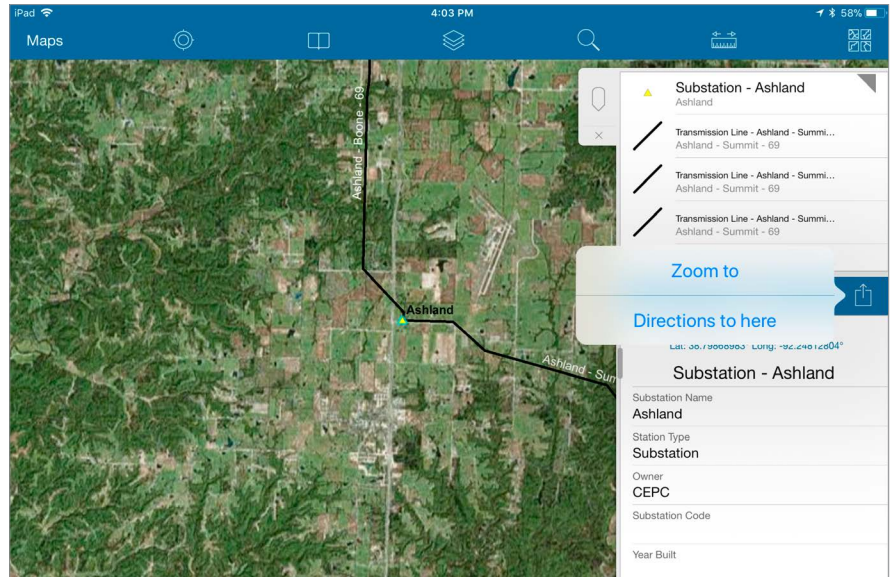
Central Electric Power Cooperative (CEPC) provides electric transmission services across 22,000 square miles of central Missouri. Over the 70 years it has been operating, the utility has amassed volumes of paper maps and asset data forms to document its electrical system.

The Challenge

For CEPC's system to run smoothly, the utility must perform annual inspections, maintenance, and service to all its poles, rights-of-way, and equipment. But office staff and linemen in the field were often working with inaccurate system maps and different information. As a result, CEPC experienced significant inefficiencies in managing its network and wanted to change the situation.

The utility staff needed to achieve accurate and thorough asset data collection. They also needed to be able to navigate to and from the many assets that span their entire service area, most of which is rural. It was important to find a solution that worked when connected or disconnected from the Internet. They realized that ArcGIS apps could serve as a unified system, and everyone would be able to work from the same data.

To build a complete solution, CEPC staff first needed to make an accurate basemap of their entire service area. They had high-resolution satellite imagery, but the massive size of that data made it challenging to use.



Using ArcGIS apps on iPads, CEPC linemen have the information they need at their fingertips.

“The crew [members] found that ArcGIS apps were easy to use and made work more efficient. Now, they rely on their iPads as a single source of truth for an accurate picture of the electric system while they’re in the field.”

Andy Adrian
CEPC
Right-of-Way Coordinator

The Solution

Using ArcGIS software, CEPC staff built a map tile package that included their high-resolution imagery. The maps could be side loaded onto a mobile device for use offline, anywhere across their service area. Using the [Collector for ArcGIS](#) app, they recorded the existing paper and electronic data for each asset, making it available as a feature layer to display on the map. Then, using the [Survey123 for ArcGIS](#) app, they built a smart form to record asset inspections. Finally, they started using [Navigator for ArcGIS](#), to navigate across their road network from asset to asset. With the promise of these apps seamlessly working together, CEPC staff ran a three-month test. The results convinced them to move forward with full deployment of the ArcGIS apps.

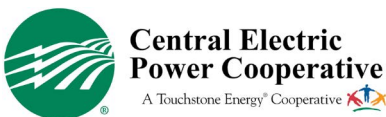
The Results

To get all staff members trained on ArcGIS apps, CEPC created a detailed user manual and conducted a training session for the entire field workforce. Office staff walked through various scenarios, while the linemen followed along on their company-issued iPads. Then, the linemen took the new app workflows into the field.

Feedback was positive. For the first time, linemen had all the information they needed at their fingertips. They could complete their daily work assignments without calling the office for additional asset details or referring to paper maps. In addition, they could easily jump from collecting and editing data with Collector and Survey123 to navigating to any asset on their system with Navigator.

“Navigator for ArcGIS has been a great tool for the newer employees,” said Andy Adrian, CEPC rights-of-way coordinator. “The Navigator app guides them efficiently and safely to where they need to go.”

From the office or the field, CEPC now offers a common view to all staff. The utility has, in turn, streamlined its operations and increased efficiency of field activities.



esri.com/fieldapps