

# PERFORMANCE

## El Paso Electric

Operating more productively throughout an extensive service territory.

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El Paso Electric (EPE) is a regional electric utility that serves five counties throughout Texas and New Mexico, including the widely populated cities of El Paso and Las Cruces. Its large service territory includes two connections to Juarez, Mexico, and the Comisión Federal de Electricidad (CFE), Mexico’s national utility.

Providing generation, transmission and distribution, EPE serves more than 300,000 retail and wholesale customers. While EPE has onsite generation, its main power station is part of the Palo Verde Nuclear Generating Station in Wintersburg, Arizona, of which it has a 15.8 percent interest.

## Project at a glance

<b>Project Type</b>	Regional electric utility
<b>Location</b>	Texas and New Mexico
<b>Number of Customers</b>	300,000+
<b>Applications</b>	Provide a geographic view of utility assets and outages, allowing field workers to track and send asset updates from the field to ensure all changes are updated and accessible in real-time, which ultimately simplifies and enhances the design process.
<b>Software Implemented</b>	ArcFM™ Network ArcFM Design

## Customer benefits

- Increased communication of network updates from the field
- Conservation of resources due to increased outage accuracy
- Improved power restoration efficiency and productivity

## Goal

Modernize operations with a geographic view of utility assets and outages, allowing field workers to track and send asset updates from the field to ensure all changes are updated and accessible in real-time

## Story

Due to an outdated workflow process and mainframe work management system, EPE was finding it more and more difficult to design its network and documents for distribution of work requests, creating workflow backlogs and inefficiencies

## Solution

- ArcFM Network
- ArcFM Design

## Results

- Increased communication of network updates from the field
- Conservation of resources due to increased outage accuracy
- Improved power restoration efficiency and productivity

## Challenges

Prior to implementing Schneider Electric's ArcFM solutions, EPE had a diverse workflow process due to its mainframe work management system. In order for field workers and operators to view the network, personnel were required to draw it in AutoCAD. It then needed to be printed for field workers and operators, which made the network information inaccurate and immediately out of date.

This robust process made it difficult for EPE to design its network and documents for distribution of work requests, creating workflow backlogs and inefficiencies.

In addition, operators wouldn't always be informed if changes were made in the field, especially if these changes occurred in the middle of the night. If field workers had to change the configuration of a circuit, they would hand-note it on their map, but fail to share that information with the rest of the utility. Inaccurate asset information was more common at EPE than not, and both field crew and operators knew it was time for a change.

## Solution

In 2006, EPE decided to implement Schneider Electric's ArcFM Design solution to streamline the robust design, estimating, construction, and as-built workflow process by establishing a single point of entry for all asset information. EPE integrated ArcFM Design with its work management system (WMS), allowing the two systems to communicate with each other and further streamline the workflow process from design through construction. Throughout

a project life cycle, ArcFM Design allows EPE to keep the entire project organized and up-to-date, managing both the design documents and asset data.

EPE later decided to implement ArcFM Server due to its extensive web services. With the deployment of a web application, EPE's field workers could access GIS in the field to determine the exact location of outages. Moreover, field workers can now take screen shots of areas where they've completed work, so updates made in the middle of the night can be communicated back to the utility and accurately updated in the GIS network, reducing the risk of inaccurate network and asset information.

The utility also used ArcFM Server as a base to develop web application of its own. For example, the utility created a map overlay that allows EPE to visualize its facilities and land base against vehicle and outage locations. This gives operators a wealth of knowledge, allowing them to understand exactly what needs to be repaired and with what materials before arriving on the scene in order to restore power faster.

EPE's lineman also can use ArcFM Server to conduct Electric Traces, which allows EPE to trace its electric distribution systems — upstream or downstream — and optionally return protective devices.

"ArcFM provides one of the functions that I haven't seen in other GIS systems; trace capability. When we first explained this functionality to the linemen, their eyes lit up," said Max Ludwig, manager of Asset Management Technologies at El Paso Electric.

"What the ArcFM solution brings to the table is utility-specific functionality. It was designed by electrical engineers in the power industry for utilities, and really supports our processes. It supports the type of data that we're interested in."

— Max Ludwig,  
manager of Asset  
Management Technologies

Schneider  
Electric's ArcFM  
Network and  
ArcFM Design put  
a utility's needs at  
the forefront of its  
technology.

### The bottom line

EPE has already seen significant enhancements in performance due to its ability to streamline processes. EPE can now proactively respond to outages, update the system accurately due to field workers' ability to send network updates back to operators efficiently, and rely on the pertinent information the integrated solutions provide.

"In terms of our System Average Interruption Duration Index (SAIDI) and the System Average Interruption Frequency Index (SAIFI) stats — reliability indices compiled by the Public Utility Commission of Texas that measure the duration of outages and the frequency of outages — we're the best in Texas and have been over the last few years," said Ludwig. "While I can't draw a direct correlation between what we're doing and the Schneider Electric solutions we've implemented — because there's a lot more to it than just the technology — I'm confident the solutions have helped enhance EPE's ratings."

Utilities are turning to smarter solutions that help speed up processes that can be cumbersome on a utility's workforce. Schneider Electric's ArcFM solutions do just that, ensuring utilities are not only backed with industry knowledge traditionally stored in the minds and desks of long-time employees, but solutions that put a utility's needs at the forefront of its technology.

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With the integration of Schneider Electric ArcFM Design and ArcFM Network, EPE can operate more productively and continue to better serve its large service territory.

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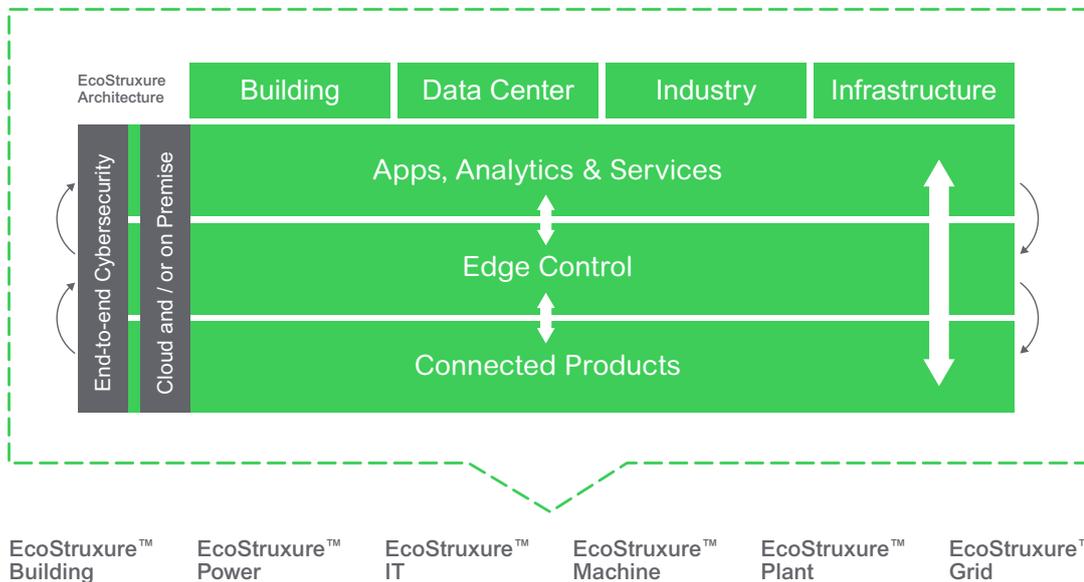
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