

Track your energy usage and maximize savings

Highlights:

- In the past, Elevation had selected low-cost connectors for its Curb Energy Monitoring devices but realized that quality connectors could improve the value of their end product
- With Phoenix Contact's PTSA push-in technology terminal block, Elevation has reduced installation time and improved overall quality
- Phoenix Contact has proven to be more of a partner than a vendor, and Elevation expects the relationship will continue to grow

"Ultimately, we found that price was not the most important thing, but it was really about finding the right connector that allowed our product to be installed faster and more reliably."

Eric Norwood, CTO of Elevation

Customer profile:
Elevation

As energy prices skyrocket, many homeowners are looking to solar energy as an affordable way to power a home. And when solar power is paired with energy monitoring, a homeowner can maximize savings and efficiency.

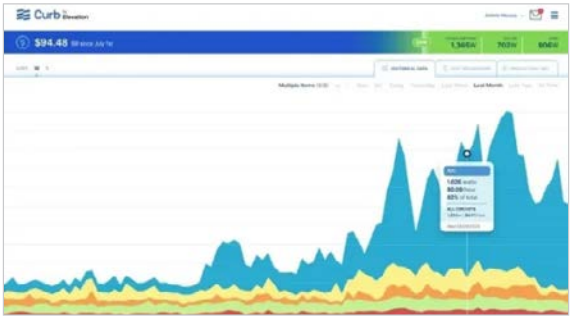


Figure 1: Elevation delivers smart energy solutions to benefit a homeowner's family, wallet, and the planet.

Elevation, based in Austin, Texas, delivers smart energy solutions to benefit a homeowner's family, wallet, and the planet. The business began, as Curb Energy, with monitoring rooftop solar, and quickly expanded to include energy efficiency. In 2020, after acquiring Curb Energy, Elevation added smart energy monitoring technology to its portfolio, giving homeowners a complete solution (Figure 1).

"Curb is an energy monitoring solution that tells the homeowner how they're using energy all over their house," explained Bill Chatterjee, vice president of operations for Curb. "It's not just energy monitoring; it's also looking at the diagnostics and the health of the appliances that it's monitoring."

Curb Energy Monitoring devices use advanced technology, such as energy monitoring and reporting software, energy-efficient lighting and HVAC systems, and renewable energy sources, such

continued →

© Phoenix Contact USA, Inc.

as solar and wind power, to help businesses achieve energy efficiency and cost savings. By providing real-time data and personalized notifications, these devices help users make informed decisions about their energy usage habits, potentially leading to significant energy and cost savings.

Challenge:
Finding the right connectors involves more than just price

The previous generation of the Curb Energy Monitor used small pluggable screw terminal blocks. While they were inexpensive, they were difficult to install. The technician had to hold the wire in the connector plug with one hand and then use the other hand to torque the screw. The technician also had to work with very small tools.

"One of the things that you go through when you're designing a product is called component engineering, where you look at every component that you need to build this thing," Bill stated. "You pick the biggest things, like your processors, first. Then you buy all the other components that go around it, and you search the market to see who the leading players are."

Eric Norwood, CTO of Elevation, said, "My initial perspective was, let's just use inexpensive connectors. Let's get something that's cheap. And I quickly realized that price is not the only variable on which to evaluate connectors."

Solution:
Easy connections with Push-in Technology

For the newest generation of Curb Energy Monitoring, Elevation selected Phoenix Contact's PTSA for its Push-in Technology, space-saving capabilities, and economic value (Figure 2). With Push-in Technology, the installer can insert two stripped wires with the push of a button.



Figure 2: For the newest generation of Curb Energy Monitoring, Elevation selected Phoenix Contact's PTSA for its Push-in Technology, space-saving capabilities, and economic value.

The spring contact ensures that the wires are secure without the use of tools.

Push-in Technology reduces installation time by eliminating the need to use a tool to terminate. The technology also improves reliability by removing the torque spec requirement and continuous contact on the wire even as the copper wire relaxes over time. Elevation also saved money by using a single, fixed Push-in terminal block versus the pluggable screw terminal block used on a previous product.

Eric said, "I found that Phoenix Contact was a really good partner and a solution provider, rather than a vendor of a particular component. When they came into our office, they got experience with our product and tested it. They brought experiences from other customers who'd used these different components and educated us about all the other factors that go into selecting the right kind of connector."



Figure 3: Phoenix Contact and Elevation have worked together as partners, so that Curb Energy Monitoring systems can be installed faster and more reliably.

Results:
Reaping the benefits of solar power and energy monitoring

"Ultimately, we found that price was not the most important thing, but it was really about finding the right connector that allowed our product to be installed faster and more reliably," Eric said. "And I don't think we would have found that solution if we went with a different kind of partner for connectors."

Eric described Joni Janovec, senior market development for Phoenix Contact, as "a partner who's helping understand what's going on in our business, what challenges we're trying to solve, and then empowers us with different solutions" (Figure 3).

"We have been working with Phoenix Contact and Joni, specifically, for almost nine years now," Bill said.

continued →

"From the beginning, Joni has always been extremely supportive, and she's always able to find solutions for us."

Elevation expects the relationship to continue to grow. "As we bring new products to market, we'll need different types of connectors that allow us to lower the cost of our product or speed the installation of our product," Eric concluded. "We bring in Phoenix Contact early, during the prototype design of our product, because they can help empower us with the right materials and resources to make that a truly great product."

Elevation estimates that consumers can save up to 95 percent on their annual electricity costs when using the Curb Energy Monitoring system. With the right connectors and a strong support team, Elevation can keep installation fast and affordable for its customers so they can maximize savings and power their lives smarter.

Watch a video about the application here.