

Giving New Life to Aging Underground Electrical Vaults

SCE implements innovative process to repair decades-old vaults quickly and safely, helping to reduce power outages and traffic disruptions.

Chip Chapella has been with SCE for almost 40 years. His job involves repairing underground electrical vaults that have been in service much longer, often by 20 years or more. These concrete boxes house electrical equipment for the underground portion of the local grid and contain transformers and other key components that help sustain a reliable power system.

Traditionally, vaults approaching the end of their life cycle need to be replaced because of cracks or other damage that could compromise the integrity of the equipment inside. That involves digging out the vault, often among newer buildings and other infrastructure.

“A vault constructed in the 1960s might have had a few buildings in its vicinity at the time,” said Chapella, SCE’s vault replacement program manager. “Today, the same structure might be adjacent to multiple large buildings on a very busy street with other utilities underground. It is a complex and challenging process to go in there to dig out the vault.”

Replacing an entire vault can take about 30 days and result in extensive traffic disruptions and lengthy power outages. But now, Chapella’s crew is using an innovative process developed by a company called **Composites for Infrastructure** that takes a fraction of the time. SCE is the first electric utility to deploy this technology, which was initially developed to patch up and strengthen dams.

Reduced Construction Impacts

Recently, Chapella’s team used the process to repair a vault on the Balboa Peninsula in Newport Beach. A fiberglass and liquid-based compound is applied to the interior walls of the vault, filling and sealing cracks. When the substance hardens, it’s stronger than the original concrete.

“The value of this work is that you do not have to excavate,” Chapella said. “You don’t get frustrated drivers because you are digging up the roadway, and your construction time is reduced from about 30 days to one week.”

“I’m happy Southern California Edison is using this new process. We have significant concerns about traffic on Balboa Peninsula, and any time you can reduce delays for our residents, that’s a good thing,” said Diane Dixon, former Newport Beach mayor and a new member of the California Assembly. “I’m also encouraged that SCE is being proactive in replacing its aging infrastructure and reducing the duration of power outages, which are a significant inconvenience for our residents.”



The Composites for Infrastructure repair process is expected to extend the life of an underground electrical vault by 50 years. Once hardened, the liquid and fiberglass compound used is stronger than the vault’s original concrete. Photo credit: Joseph Foulk

Long-Term Cost Savings

Another important aspect of the new vault repair process is its cost savings. Without the intrusive excavations and with the significantly shortened work time, the cost is 35%-45% cheaper than a vault replacement.

With more than 20,000 vaults eligible for the process, the savings to customers start to add up.

“It’s a win-win for everyone,” said Chapella. “Businesses and residents are happy because we’ll roll out of a project in one week. Customers will be happy as we pass these savings on to them over the coming years.”

Visit [sce.com/about-us/reliability](https://www.sce.com/about-us/reliability) to learn more about our infrastructure upgrade and other reliability initiatives.

Celebrating Business and Community Partnerships






Last week SCE held our annual Black History Month (BHM) event to celebrate organizations and companies that advance the efforts and contributions of African American communities.

Civic and community leaders, business owners, cultural icons and SCE and Edison International (EIX) leadership participated in the virtual event, which featured exhibitors, entertainment, an art showcase, a cooking demo, energy education and a celebration of the Lineman’s Scholarship and Edison Scholars programs. In addition to SCE/EIX executives, our stellar speaker lineup included:

- Pre-Event Host: Keenya Kelly, CEO and Founder, Keenya Kelly, LLC and If You Brand It
- Emcee: Brittany Jacob, Anchor/Reporter, ABC30/KFSN-TV Fresno
- Keynote Speaker: Stacey A. Gordon, Executive Advisor and Workplace Culture Consultant, Rework Work
- Guest Speakers:
 - Mayor Rex Richardson, City of Long Beach
 - Glenn Bowie, Speaker/Author/Trainer/Consultant, Glenn Bowie Speaks
 - Supervisor Janice Hahn, 4th District, Los Angeles County
 - Supervisor Holly Mitchell, 2nd District, Los Angeles County

We also proudly honored organizations in the categories of Clean Energy Champion, Community Partnership, and Diversity. Our previously named Diverse Business Enterprise Award, now the Gwen Moore Diversity Award, pays tribute to the former California assemblywoman who passed away in August 2020. Moore was the architect and political force behind California General Order 156, which is a state supplier diversity program that has strengthened and stabilized several California Black-owned, other minority-owned, women-owned and LGBTQ-owned businesses by helping them secure lucrative state contracts.

Congratulations to this year’s highly deserving award recipients:

<p>Gwen Moore Diversity Award:</p>	<p>Imperial Electric Service</p>	
<p>Clean Energy Champion Award:</p>	<p>Millionaire Mind Kids (MMK)</p>	
<p>Community Partnership Award:</p>	<p>Los Angeles Urban League</p>	

Read more about these outstanding organizations on our 2023 BHM **honoree website page**. Hashtags: [#BlackHistoryMonth](#) [#SCEBHM2023](#)

To learn more about our business programs and community initiatives, follow us on Twitter @SCE_Business and @SCE_Communities, and join our Business and Community Partnerships **Facebook** page and our SCE Business **LinkedIn** page. For more details on SCE’s diversity commitment, cultural awareness and outreach, visit sce.com/diversity.