

Momentum for High-Speed Electric Rail System From Southern California to Las Vegas Gains Speed

SCE's power system expertise will support operation of this zero-emission transportation technology to help reduce carbon emissions.

Southern Californians who want to get away to Las Vegas often dread the idea of making the drive – spending several hours in the car on a highly traveled and congested route, in the process burning a significant amount of gasoline that produces greenhouse gas and smog-forming emissions.

But a project in the development stages is promising a winning strategy before future visitors even see the lights of Las Vegas: modern, electric-powered, zero-emission trains that will make the 170-mile trip from California's Victor Valley region in just 85 minutes – twice as fast as driving. The trains will reach top speeds of 200 mph as they travel within the median of Interstate 15 (I-15). Approximately 135 miles of the 170-mile system route will be located in California.

Brightline West, the first privately funded passenger rail system in the United States in nearly a century, will provide and operate the trains. The project (Brightline's first outside of Florida) is estimated to start construction by the end of this year and begin operation in early 2024. In addition, the company said it is planning to extend the rail system through projects to connect and build new stations at Rancho Cucamonga, Palmdale, and the existing Los Angeles Union Station. Brightline West's planned intercity additions would increase the system's length to 260 miles, furthering car-free mobility options from Southern California to Las Vegas.

SCE's Service Solutions

Helping enable a major project like the Brightline West system requires significant technical expertise from SCE as the local power provider. Based on a Method of Service study, SCE developed an extensive plan to bring this innovative, clean technology to Southern California. As part of this work, SCE is constructing new substations dedicated to serve the project.

The trains are Electric Motorized Units (EMUs) with distributed power throughout the eight-car train set, where every other car has a power unit. Power is delivered to the trains through an overhead catenary system with poles located approximately every 200 feet to carry the wire that makes contact with each train through a high-tension contact plate called a pantograph.

Transportation Transformation: A Clean Power Pathway

Significantly expanding use of electric-powered transportation represents a key element of California's ambitious plan to achieve carbon neutrality by 2045 to reduce the threat of climate change. Statewide, the transportation sector accounts for 45 percent of greenhouse gas emissions and more than 80 percent of air pollution.

"SCE is committed to supporting projects like the Brightline West electric-powered high-speed train system, which will bring state-of-the-art emission-free technology to our service territory," said Mike Marelli, SCE vice president of the Business Customer Division. "To accelerate our response to climate change and air pollution, all sectors of the economy, including transportation, must play significant roles to reduce emissions."



SCE is providing power system solutions to Brightline West for a high-speed rail project featuring zero-emission electric-powered train service from Southern California to Las Vegas, with operation expected to begin in early 2024 (rendering shown).

Noted Ben Porritt, Brightline's senior vice president of Corporate Affairs, "Brightline has a mission to take cars off the road and provide more environmentally friendly forms of travel. California is a national leader on emission-free standards, and residents and future guests alike see the importance of electric technology."

Porritt said the project will remove 3 million cars annually from the 1-15, eliminating 400,000 tons of carbon dioxide emissions each year.

He added, "Every year there are 50 million trips made between Las Vegas and the Southern California region, with 85 percent of those by car or bus. We believe a car-free way to travel that is faster, greener, and cheaper than driving will be highly attractive to leisure and business travelers. Our ridership estimates show that at full operation, Brightline West will carry more than 11 million passengers each year."

For the passenger delivery point in California, SCE and Brightline West are working on plans for the installation of electric vehicle charging stations, and may leverage future SCE Charge Ready programs to further support electrification initiatives.

Powering Job Creation

Beyond its environmental benefits, the Brightline West project provides the promise of construction and permanent jobs, plus other economic benefits.

According to Brightline, the system is projected to create more than 30,000 jobs during the construction period (20,000 of them in California) and 1,000 permanent jobs after opening (650 of them in California). The company also said that the investment in infrastructure and the ongoing operations are expected to provide an economic impact of more than \$6 billion, with approximately \$4 billion of that concentrated in California.

To support the project in these areas, SCE's Economic Development Services team is working closely with state, county, and city partners to help the project come to fruition and add to the region's economic growth. This team provides incentives and services to help attract, expand, and retain businesses in California, as well as add jobs to regional communities.

Brightline's Porritt said that given all of the benefits of electric train travel, the company sees it as an ideal option to connect cities and congested corridors that are too close to fly and too far to drive. With SCE's power behind the new Brightline West system, in just a few years Southern Californians will be able to get on board and enjoy the emission-free ride.

For SCE assistance on any projects, contact your Account Manager. Learn more about SCE energy management solutions at [sce.com/business](https://www.sce.com/business).

This case study is provided for your general information and is not intended to be a recommendation or endorsement of any particular product or company, or a representation of any actual or potential future energy or monetary savings for any customers.

Hispanic Heritage Month: Celebrating Businesses and Community Partnerships



SCE recently held its 10th annual Hispanic Heritage Month (HHM) celebration, recognizing organizations and companies that advance the efforts and contributions of the Hispanic and Latino communities.

With the theme "Representation Matters," SCE noted that achieving its goals for a clean energy future is a collaborative effort that requires diverse ideas, and local, regional, and national partnerships. We have long been committed to working with women, minorities, disabled veterans, lesbian, gay, bisexual, and transgender business enterprises. Last year, we spent \$2.2 billion with diverse firms, representing 40 percent of total procurement spend.

As part of the HHM virtual event, SCE presented awards to the following Hispanic and Latino organizations:

- Clean Energy Champion Southern California Awardee: City of Moreno Valley
- Clean Energy Champion Central Valley Awardee: Pleasant View Elementary School District
- Community Partnership Southern California Awardee: Adelante Youth Alliance (AYA)
- Community Partnership Central Valley Awardee: Community Services Employment Training (CSET)
- Diverse Business Enterprise Southern California Awardee: AlvaradoSmith Law Firm

Read more about these outstanding organizations on our 2020 HHM [honoree website page](#). Hashtag: [#SCEHHM2020](#)

Also follow us on Twitter [@SCE_Business](#) and [@SCE_Communities](#), and join our Business and Community Partnerships [Facebook](#) page, to learn more about our business programs and community initiatives. For more details on SCE's diversity commitment, cultural awareness, and outreach, visit [sce.com/diversity](#).

Earn Financial Incentives Through Demand Response Programs

A key to business success is keeping electricity costs down – and at SCE, we're committed to helping you do just that.

We offer Demand Response (DR) programs to help you reduce your costs. Your business may **benefit** from temporarily lowering energy usage during high-use or peak times, or from shifting usage to off-peak hours. This, in turn, helps reduce overall electricity demand and alleviate strain on our electric system. You'll not only potentially save money, you'll also help the environment.

The following select DR programs are currently open to new enrollment and offer smart ways to lower your bills through rate discounts, bill credits, and incentives.

- **Automated Demand Response (Auto-DR):** Auto-DR provides equipment control incentives to enable you to participate in DR programs by reducing electricity usage without manual intervention. The controls incentivized by Auto-DR let you preselect your load reduction strategies and automatically respond to DR events for maximum flexibility and ease-of-use. You also can override Auto-DR signals or revise your load reduction strategies when necessary.
- **Critical Peak Pricing (CPP):** CPP is a rate that offers a discount on summer electricity rates in exchange for higher prices during 12 CPP event days per year, usually occurring on the hottest summer days. By reducing your electricity use during CPP events, you can lower your electric costs during the summer season – when your bills are typically the highest.
- **Real-Time Pricing (RTP):** If your business has flexibility around its operating schedule, you may want to consider the RTP rate. This rate schedule is beneficial if you can reduce energy usage during hours with higher temperature-driven prices, and/or shift usage to lower-priced hours. You may want to sign up for RTP courtesy email notifications that alert you of temperature-based price changes.
- **Summer Discount Plan (SDP):** Through SDP, you can receive monthly credits on your summer season bills. SCE installs a small remote-controlled device on or near your central A/C unit(s). The device allows us to turn off or cycle your A/C compressor(s) for up to six hours a day during an SDP event.
- **Capacity Bidding Program (CBP):** This flexible bidding program pays you for reducing energy during events in which energy prices are high, demand reaches critical levels, or supply is limited. You can change your monthly level of participation depending on your business needs. If you take part through a third-party DR aggregator, participation and incentives are managed by the aggregator.
- **Third-Party Demand Response Providers:** Third-party DR providers develop and manage their own DR programs that may be available to you. By partnering directly with businesses, DR providers can pool or aggregate customers under their DR program(s) to achieve energy reductions. Your participation and incentives are managed by the third parties.

For a complete list of SCE's DR programs, a list of third-party DR providers, and to learn how we can work together to help you manage your company's energy use and improve your bottom line, contact your Account Manager or visit [sce.com/drp](#).