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**Silicon Valley Power
kept the power on
at Super Bowl 50**



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On February 3, 2013, the San Francisco 49ers faced off against the Baltimore Ravens in Super Bowl 47. Over 71,000 fans were in attendance at the New Orleans Superdome, and over 100 million viewers tuned in on their televisions to watch the big game. The famous Super Bowl halftime show featured a performance by Beyoncé and an elaborate pyrotechnic display that left the enclosed stadium filled with lingering smoke. Going into the third quarter of the game, stadium personnel followed normal procedures and started the exhaust fans to clear the haze. Unknown to them, however, the Department of Homeland Security had sealed all exhaust fan inlets, which caused the fans to over-speed and trip the system. This led to a partial power outage and a 34-minute delay in the game.

Santa Clara City Councilmember Pat Kolstad was watching the Super Bowl on television when the stadium lights went out. He immediately pulled out his phone and texted his friend Dr. John York, the owner of the 49ers. “You won’t have to worry about the power going out in the new stadium in Santa Clara — we have reliable power in Santa Clara,” wrote Kolstad. The city councilmember was referring to the exceptional reliability record of Santa Clara’s city-owned electric utility, Silicon Valley Power, which consistently ranks as one of the nation’s most reliable electricity providers.

Just over a year later, the 49ers moved 40 miles south from San Francisco into the newly built \$1.2 billion Levi’s Stadium in Santa Clara. The National Football League (NFL) also selected Santa Clara to host Super Bowl 50 on February 7, 2016, beating out the City of Miami. This would be the first time the Bay Area hosted the Super Bowl since 1985, and the first time California was the site of the game since 2003.

Silicon Valley Power was deeply involved in the Super Bowl preparation. Past events, such as the 2013 Super Bowl



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power outage, brought electricity to the forefront of the planning efforts. There was also the 2011 blackout during Monday Night Football at the 49ers’ former home, Candlestick Park in San Francisco. Aerial footage showed a large explosion outside of the stadium — it was a blown transformer that wiped out power to the ballpark, causing two delays during the sold-out nationally televised game. A number of people in the stadium compared the sound and vibrations of the explosion to the Loma Prieta earthquake in 1989. Luckily, the electrical issues were relatively minor, but the initial scare and the disruption to the football game was some-

thing the NFL wanted to avoid in the future.

Taking the lessons learned from the 2011 Candlestick and 2013 Superdome outages, Silicon Valley worked closely with the NFL to minimize the chance of power failure at Super Bowl 50. “We went through a great deal of pre-planning with the NFL,” said John Roukema, director of Silicon Valley Power. “By over planning, it was less likely that something would happen. And as we saw, everything went smoothly.”

Silicon Valley Power’s planning was focused on reliability and redundancy. The publicly owned electric utility went through a thorough scenario planning process to prepare for a variety of issues that could arise. Utility staff and the NFL spent a significant amount of time checking that electrical equipment settings and connections were correct. The stadium was also set up with feeds from three different substations, each capable of supporting the stadium on its own. Two of the feeds were equipped with automatic failover, while the third allowed for manual switching, just in case it was needed.

“We were very focused on keeping the lights on,” explained Teresa O’Neill, vice-mayor of the City of Santa



The above photo shows multiple power assets utilized by Silicon Valley Power to seamlessly support Super Bowl 50. On the right side of the photo is the switchgear associated with a 49-megawatt peaker plant, Gianera Power Station, which is just to the right of the photo. Silicon Valley Power's Northern Receiving Station can be seen in the background in the far left. All photos provided by Silicon Valley Power.

Clara. “We wanted to highlight our infrastructure and show that we have a very stable environment.”

This stable environment is one of Silicon Valley Power's biggest assets to its customers. As the name suggests, Silicon Valley Power is home to a number of high-profile technology firms and large data centers. Data centers in particular are heavily reliant on dependable electricity. In Santa Clara, these facilities store, manage, and disseminate data for millions of people internationally. “These companies receive a premium by locating in Santa Clara,” said Larry Owens, Customer Services and Marketing manager for Silicon Valley Power. “They are attracted to the low-cost, reliable power that's readily available and among the greenest in the country.”

Silicon Valley Power's experience with its high-expectation customers made it an excellent fit for the Super Bowl. “In terms of size, Levi's Stadium is not a huge customer, nor is it different from any other customer of ours,” said Roukema. “If the Super Bowl wasn't such a high-profile event, we wouldn't have done anything differently.”

In addition to focusing on the electricity for the game, Silicon Valley Power coordinated with local police, the Federal Bureau of Investigation, and Homeland Security on a variety of security measures. There was a heightened level of concern in light of the recent terrorist attacks in Paris and San Bernardino. The area surrounding the stadium, including a city-owned power plant and a substation, was on lock down. Operating facilities in this area required unique steps, such as personnel prescreening and restrictions on moving equipment in and out.

During the November 13, 2015, Paris attacks, terrorists tried to target a soccer stadium. Fans could hear explosions coming from outside the stadium. With the attacks fresh in people's minds, Silicon Valley Power developed a public communication strategy to provide information on any loud sounds coming from its distribution system. It wanted to avoid any unnecessary panic if, for example, a transformer blew out like at Candlestick in 2011. This type of planning illustrates the level of detail the utility looked at when preparing for the event.

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Santa Clara and Silicon Valley Power welcomed Super Bowl fans throughout the city. The above is Tasman Garage, the city-owned parking garage located across the street from the stadium and adjacent to the Santa Clara Convention Center.

On the Friday before the Super Bowl, Vice-Mayor O'Neill and Councilmember Kolstad participated in a stadium walk-through. Ironically, Beyoncé was there rehearsing for her return to the Super Bowl halftime show — it had been three years since her performance caused the infamous outage in New Orleans.

“During the walk-through, we were told by officials that our level of preparation was excellent,” said O'Neill. “We were also told that the power infrastructure in and around the stadium was superior to other Super Bowl stadiums.”

The superior infrastructure in Santa Clara makes it convenient for big events to perform at Levi's Stadium. “It is very easy, more attractive, and less expensive for large acts to come to Santa Clara,” explained O'Neill. In its two-year history, Levi's Stadium has held major events, such as Wrestlemania; an outdoor National Hockey League game; an International Champions Cup soccer match; Pac-12 football championship games; and concerts by One Direction, Taylor Swift, Kenny Chesney, Luke Bryan, and the Grateful Dead. “Because of our power infrastructure, productions like the Grateful Dead concert didn't have to bring outside generators for their event, which made things less expensive for them,” said O'Neill.

Silicon Valley Power is proud of its dedication to providing cost savings to its customers through infrastructure and rates. “Our rates are 16 to 43 percent lower than those in nearby cities,” boasted Owens. “Customers save over \$100 million annually compared to what they would pay in neighboring communities.”

Silicon Valley Power has consistently scored high ratings in low prices, reliability, and customer satisfaction

through surveys conducted by RKS Research, an independent New York research firm.

One area that the utility has been focusing additional attention on is community events and outreach for its customers. The Super Bowl provided a unique opportunity for Silicon Valley Power to sponsor events held by the city during the weeks leading up to the game.

As an official “Super Community,” the City of Santa Clara hosted and promoted a number of pre-Super Bowl events. The city began festivities in early December with a Christmas tree lighting ceremony, entertainment, food, a public ice skating rink, and a fireworks show sponsored by Silicon Valley Power. Subsequent events included a day-long festival, various exhibits, a race, concerts by well-known bands, and two other fireworks shows sponsored by Silicon Valley Power.

The utility wanted to make the fireworks shows special events just for its customers — proof of residency was required for admission. During breaks in action at the shows,

the utility played an educational video it produced with a superhero dog and catchy soundtrack. The video urged residents to take special precautions when celebrating with Mylar balloons and helium balloon bouquets — they can cause a power line to short circuit and create a power outage.

After all the planning and the pre-Super Bowl events in Santa Clara and around the Bay Area, the Super Bowl had finally arrived. In 2013, when Levi's Stadium was picked as the site of the Super Bowl 50, the 49ers just came off of a winning season in which it almost won the Super Bowl. With the team's success, there were high hopes that three years later, Santa Clara could actually watch the 49ers play in the big game on its home turf. Unfortunately, after two disappointing seasons, it was not meant to be. Instead, Santa Clara hosted the Denver Broncos and Carolina Panthers.

With over 71,000 people in attendance and over 110 million people watching on television, the game was played without a hitch, especially from Silicon Valley Power's point of view. The utility spent the day monitoring its electric gear and communicating with the various event organizers operating in the stadium. A joint information center made up of over 20 different entities, including security, the NFL, and Silicon Valley Power, was set up to create a central hub for communications.

Silicon Valley Power had spent months preparing for the year's biggest sporting event in the nation, and while the city and the NFL were the center of attention, the utility was pleased that it was not. “Our main objective was to make it a non-event from a power perspective,” said Roukema. As he reflected on the success of the event, the

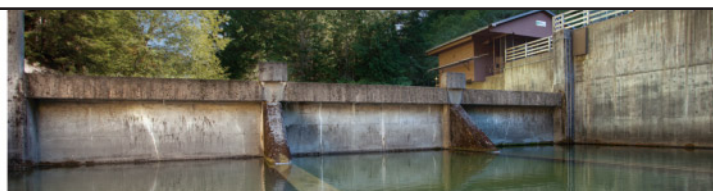
utility director compared it to a similar “non-event” he was involved in 16 years earlier. “In many ways, our Super Bowl planning reminded me of Y2K. All this preparation. All this work. We had an emergency center up, but nothing happened.”

As for Beyoncé, she took advantage of the open-air stadium and put on a performance that involved more pyrotechnics than her halftime performance in 2013. This time, however, the power stayed on. **NWPPA**

Mario De Bernardo is the external affairs manager for the Northern California Power Agency (NCPA). NCPA is a non-profit California joint powers agency established in 1968 to generate, transmit, and distribute electric power to and on behalf of its 15 members: the cities of Alameda, Biggs, Gridley, Healdsburg, Lodi, Lompoc, Palo Alto, Redding, Roseville, Santa Clara, and Ukiah; the San Francisco Bay Area Rapid Transit (BART); the Port of Oakland; the Truckee Donner Public Utility District; and the Plumas-Sierra Rural Electric Cooperative. De Bernardo can be contacted at Mario.DeBernardo@ncpa.com.



The superior infrastructure in Santa Clara makes it convenient for big events such as Super Bowl 50 to perform at the relatively new Levi's Stadium.



Balancing the New Energy Horizon

A diverse mix of energy generated at Energy Northwest provides enough reliable, affordable and environmentally responsible power for more than one million homes.



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