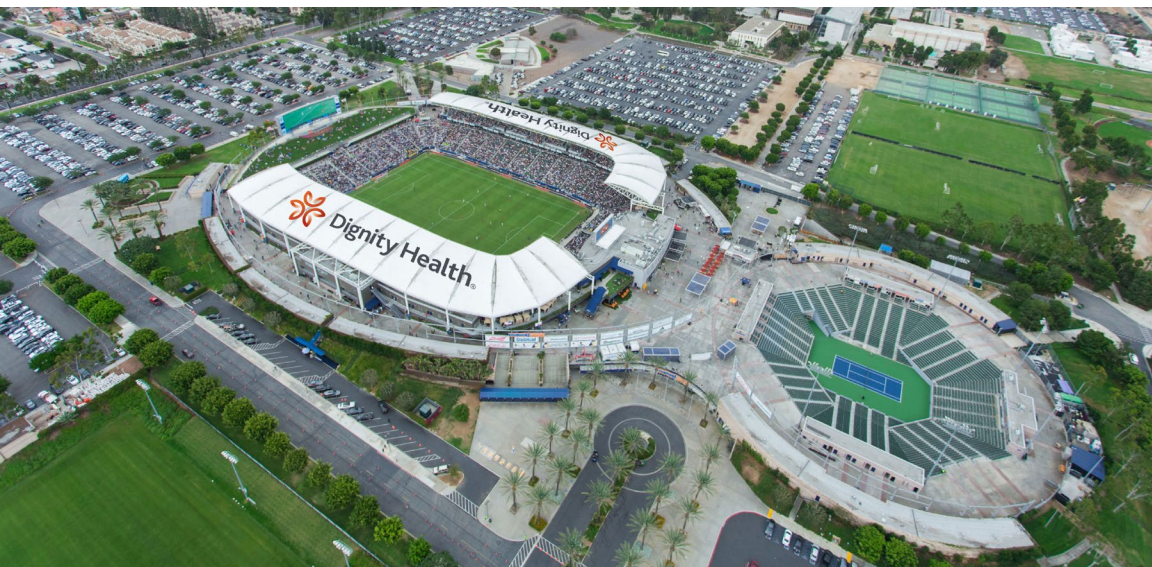


Dignity Health Sports Park



Location

Carson, California

Facility Type

Stadium & sports complex

Applications

Demand charge reduction, demand response, and protection against rate changes

Commercial Operation Date

January 2017

Energy Storage System Size

1 MW / 2 MWh

Deploying the largest energy storage system of any stadium in the country gains cost savings and energy flexibility

Home to the LA Galaxy U.S. soccer team and USA Cycling team, Dignity Health Sports Park is a state-of-the-art stadium in Carson, California owned and operated by AEG Worldwide. Built in 2003, the 30,000-seat complex includes a football and soccer stadium, tennis stadium, velo sports center, and track and field facility.

The Dignity Health Sports Park, with partners LA Galaxy and AEG 1EARTH, strives to set the standard for green stadium operations. It's the first soccer-only MLS venue to utilize LED stadium lighting, was the first stadium to irrigate with recycled water, and recently unveiled a new community garden & greenhouse that supplies fresh produce for team and venue staff. The Dignity Health Sports Park is now home to the largest energy storage system deployed at any stadium in the country.

Challenge

AEG pursued energy storage for its ability to adapt to constantly changing energy use and prices. As a stadium serving the public, Dignity Health Sports Park doesn't have the flexibility to reschedule operations to avoid peak electricity prices. Before energy storage, Dignity Health Sports Park had to buy electricity at the exact time it was needed, even if prices were 10X more expensive than earlier in the day.

“Battery storage steps ahead of other technologies because energy is always going to cost more at certain times than others. If you can charge the battery when costs are low and deploy it when costs are high, that gives you a hedge. Plus, minor changes to the utility's rate structures won't affect your overall investments, as they would with other technologies such as solar.”

Gary Wilson

Chief Engineer at Dignity Health



Results

In addition to reducing its own energy costs, the Dignity Health Sports Park is doing good for its community by minimizing its impact on the grid during critical energy periods. The energy storage system at the Dignity Health Sports Park is digitally linked to the rest of Stem's storage network, creating a virtual power plant that can be called upon by power companies as a cost-effective alternative to fossil-fuel powered resources. This virtual power plant enables greater utilization of renewables like solar, while supporting a more sustainable, efficient and resilient grid.

Solution

Now, with intelligent storage from Stem, AEG can buy electricity when it's cheaper and use it later in the day, reducing time-based energy costs and minimizing exposure to changing rate structures. This energy cost optimization is done automatically, with no impact to operations. With AI-powered energy storage software, AEG achieves energy cost savings while reducing exposure to utility rate changes – all without any change to operations.



About Stem

Proven

- In 2019, Stem exceeded customer saving guarantees by 48%
- Stem's demonstrated track-record of performance has secured over \$650 million in project finance
- Stem customers have used the "PowerScope" software interface over 50,000 times since 2010

Experienced

- 790+ MWh across 1,000+ sites operating and contracted
- 360+ customers, including 30+ Fortune 500 customers
- 75+ permitting jurisdictions across 260+ cities
- Operating in 5 countries and 9 states

Intelligent

- Stem's industry-leading AI, Athena™, increased customer savings more than 15% in 2019
- Athena's software is updated daily to continuously enhance performance
- Athena orchestrated over 20,000 real-time market dispatches in 2019
- Stem supported corporate ESG targets and sustainability mandates in 3 states