



PROJECT PROFILE: Las Vegas Convention Center Expansion Prioritizes Sustainability and Earns Three Green Globes

“Going through our investigation process, it’s really helpful to have an expert we can bounce ideas off of,” he says. “We can discuss features we think will meet the criteria and get a second opinion from our GGA.”

DAVE RAY
Principal, GRN Vision

PROJECT RATING:



Convention centers face unusual demands as tens of thousands of visitors gather under the one roof for conferences and tradeshows. In addition to providing the sheer volume of adaptable space and meeting visitors’ daily needs, state-of-the-art technology and sustainability are high priorities. The three-story, 1.4 million-square-foot Las Vegas Convention Center Phase II Expansion (LVCC Expansion) in Nevada exceeded all aspirations.

“Their goal is to be a world-class convention center ranked as one of the most sustainable in the country,” says Dave Ray, Principal at Las Vegas-based GRN Vision who collaborated on the project with TVS-TSK Architects Joint Venture, Turner/Martin Harris and the Las Vegas Convention and Visitor’s Authority (LVVA). “Today’s tradeshow clients want to see specific data and policies that protect the environment, and achieving our Green Globes certification goals helped us quantify and demonstrate these items.”

Renewable energy is a significant way the LVCC Expansion reduced its environmental footprint. The center’s rooftop photovoltaic array produces more than 7.55 million kWh annually – nearly 22% of its energy. Paired with battery back-ups, the array saves LVCC hundreds of thousands of dollars.

LVCC’s electric company supplier, NV Energy, establishes its customers’ baseline rates in January. Although this is one of the facility’s busiest times of the year, the center offsets its peak-time demand by drawing from its solar-charged batteries to lower its annual baseline rate and save money and energy throughout the year.



The LVCC Expansion also incorporates:

- Low-flow plumbing fixtures saving over 6.2 million gallons of water a year.
- Xeriscaping and smart irrigation lowering landscape water usage 78% below baseline.
- A white roof and white concrete on all walkways to reduce heat island effect.
- Electric-vehicle preferred parking with charging stations and a Tesla tunnel “Loop” equipped with a fleet of electric vehicles that reduce fossil fuel consumption.
- A highly sophisticated building management system (BMS) with precise controls to save energy.

Illuminating Approach

Audio/visual technology requires rooms to be completely dark during sessions, but daylight plays prominently in the public spaces. “As soon as you enter the main circulation spaces, visitors are greeted with open, daylit spaces,” explains Ray. “The expansion connects to the existing space through a glass corridor and daylight floods through the entire dining area. The center also has one of the most advanced lighting systems in the world in terms of controllability, which saves energy and enhances the indoor environment.”

Green Globes was new to many on the design and construction team, but GRN Vision had ushered multiple projects through the process. Ray thinks having a dedicated Green Globes Assessor (GGA) assigned brings new insights to the project.

“Going through our investigation process, it’s really helpful to have an expert we can bounce ideas off of,” he says. “We can discuss features we think will meet the criteria and get a second opinion from our GGA.”

As the process nears completion, the assessor conducts an onsite walkthrough to verify implementation of the sustainability elements. Ray sees this as offering a unique advantage in achieving Green Globes certification.

“The (onsite) facility assessment is the greatest tool,” Ray notes. “Because our assessor was familiar with the project and the design process, he offered real feedback. Then, he met the owners and was able to tell them he’d walked the LVCC Expansion and that they’d achieved Three Green Globes. That’s more powerful than simply receiving a plaque - it’s a much more personal approach.”



GREEN GLOBES RATINGS:

After the final assessment is verified by a third party, properties achieving a score of 35% or higher receive a Green Globes rating based on the percentage of total points achieved (up to 1000).



85-100%

FOUR GREEN GLOBES

Demonstrates world-class leadership in resource efficiency, reducing environmental impacts, and improving occupant wellness.



70-84%

THREE GREEN GLOBES

Demonstrates outstanding success in resource efficiency, reducing environmental impacts, and improving occupant wellness.



55-69%

TWO GREEN GLOBES

Demonstrates significant achievement in resource efficiency, reducing environmental impacts, and improving occupant wellness.



35-54%

ONE GREEN GLOBES

Demonstrates a strong commitment to resource efficiency, reducing environmental impacts, and improving occupant wellness.