

Enphase Monitoring Enables Virtual Net Metering

CHALLENGE

Benefit from utility by bringing renewable energy to affordable housing development

SOLUTION

Expand upon existing solar plans to design a multiple roof and carport system using microinverters

RESULT

319kW Enphase System

Optimum energy performance despite shade obstructions



“Enphase gave us a design flexibility that we couldn’t get using string inverters.”

—Gary LaSalle
President
LaSalle Solar Systems

The City of La Quinta, California, and Coral Mountain Partners, LP, utilized local utility incentives and a virtual net metering program to lower energy costs for low-income residents, allowing LaSalle Solar Systems to expand plans of a 50kW solar system to 319kW.

More Solar, More Savings

Since the start of construction, A.M. LaSalle Electric, Inc. was contracted to complete the project’s electrical system. LaSalle Solar Systems, a division of A.M. LaSalle Electric, Inc. and leading provider of commercial and residential energy services, was also contracted to install a small PV solar system on the roof of Coral Mountain Apartment’s clubhouse. Originally, the system was intended to offset the common load of the clubhouse, but with the help of the utility and the flexibility of Enphase technology, LaSalle set its sights on a much larger solar vision.

The goal was to help reduce the residents’ electrical bills through renewable energy, so LaSalle worked with their engineering and design team, Integrated Power, to



Virtual net metering allows the property owner to allocate the system's production in multiple ways.

present the property owner with a new solar plan—one that utilized additional building space and multiple carports.

Interconnection is Easy with Enphase

Expanding the system didn't come without its challenges though, and the additional rooftops posed shading issues that only microinverters could manage. Because of parapet walls, HVAC systems, and mechanical systems already on the roof, LaSalle designed the PV system in 3D so it could customize the system to make the most of the roof's available space. Even the orientation of the carports were a challenge, but again, Enphase Microinverters were the perfect fit.

"Because of shading and the orientation of carports, the site was not optimal, but we were able to optimize it with Enphase Microinverters," said Gary LaSalle, president of LaSalle Solar Systems. "If we had used string inverters, we would have been blocked from installing on several areas."

LaSalle and Coral Mountain Partners, LP, needed one single point of interconnection in order to utilize the utility's newly implemented virtual net metering rule. With virtual net metering, Coral Mountain Partners, LP, could allocate part of the energy production to the building owner to cover the energy needed by common spaces, and divide the rest between the residents of each unit of the complex, to offset part of their electrical bill.

As a result, Coral Mountains Apartments was the first virtual net metering project in Imperial Irrigation District, the area's local utility.

To learn more about the benefits of the Enphase System, visit enphase.com/commercial.



INSTALLATION SUMMARY

Client **Coral Mountain Partners, LP**

Location **La Quinta**

Installer **LaSalle Solar Systems, a division of A.M. LaSalle Electric, Inc.**

System Size **319kW**

Microinverters **Enphase M215**

Modules **Suniva MVX255**

"Enphase Microinverters helped us organize a very complex installation without the extra confusion of string inverters," said LaSalle.

Keeping a Close Eye on Production

Intelligent monitoring capabilities were a secondary factor in choosing Enphase technology for the Coral Mountain Apartments project. LaSalle knew early on that string inverters would have been a problem for this site. "We would have had string inverters all over the place, which would have made it extremely difficult to monitor."

Coral Mountain Partners, LP, has two monitoring systems: revenue grade as the utility required, and Enphase Enlighten, which the owner depends on to easily pull up the system on the computer, mobile device, or tablet and get a good view of the system as a whole.

About Enphase Energy

The Enphase System revolutionizes solar power generation with industry-leading technology innovation. Enphase's proven microinverter technology maximizes production of each module, which works together with advanced communications hardware and an intelligent software platform to deliver a reliable, high-performance solar array.