



CASE STUDY

Church Campus Sees Double Digit Energy Efficiency Gains with AssetCare®

Located in Southern California, Solana Beach Presbyterian Church is a rock for many members of the community.

A church campus serving up to 1000 people a week with maintenance needs beyond Sunday service

With 70,000 square feet of space, the campus is used not only as a church, but as a school and community center. Up to a thousand people make use of its facilities every week as part of the many programs it offers. The church grounds include a children's facility offering childcare for newborns through sixth grade, a preschool and a host of educational programs such as free tutoring and mentoring twice a week, a college preparatory course for the underprivileged and much more.

The site also includes a 5,000-square-foot auditorium that is used twice daily for all manner of community events. To say the least, the church has maintenance needs well beyond your average Sunday service.

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To keep up with the number of people coming and going on a daily basis, the church makes use of 47 thermostats peppered throughout its campus. These were, of course, difficult to manage manually and individually, as Facilities Manager Jose Ramirez will attest. The myriad factors at play throughout the property led to regular issues such as indoor fans running 24/7 using energy unnecessarily, raising energy bills which can have a dramatic impact on a non-profit organization on a tight budget.

Ramirez was already looking into getting smart thermostats installed to help get the church's energy use under control, but as he was doing so, mCloud reached out with an offer to take his energy management efforts to another level.

There were reservations at first – Ramirez noted that cutting-edge technology would be a hard sell to church leadership. Many facilities managers believe being at the technology forefront costs money, and misplaced money can all too easily bring an average church to its knees financially. Most churches have adopted an "if it's not broke, don't fix it" approach to their buildings to protect them from these dangers.

Asset performance is monitored and reported on weekly to facilitate early recognition and mitigation of potential problems

However, Solana Beach's senior pastor often encourages his congregation to take chances to learn when they arise, so Ramirez kept an open mind. Furthermore, mCloud was confident Solana Beach would see the value after a very short period and offered a no-risk trial so they could see the difference themselves.

Ramirez agreed, and within just a couple of days mCloud connected the facility's smart thermostats to its cloud-based AssetCare energy asset management platform for real-time monitoring and data analysis of its energy profile.

Analyzing the performance of the church's heating and cooling zones and rooftop HVAC units, reports are provided to Ramirez on a weekly basis showing several performance indicators and potential problem areas for regular energy management adjustments, including:

- Control problems such as thermostats set to heat/cool-only modes
- Comfort problems such as zones unable to maintain setpoints
- HVAC run times (heat/cool/fan) in unoccupied rooms and their associated costs
- Heating/cooling effectiveness
- Connectivity status and performance

The only capital expense in using mCloud's approach came from the new smart thermostats, which Solana Beach was able to get covered by their energy company. With zero out-of-pocket costs due to mCloud's unique subscription-based model, the church was immediately saving money – as the data quickly proved.

AssetCare delivered double digit percentage savings in energy efficiency

"The minute I saw double-digit percentage savings, it really caught my attention," Ramirez said.

Thanks to the trial period, the church discovered a gross savings upwards of 30 percent using mCloud's solution. Factoring in the cost of services, the net savings ended up being above 17 percent. For a facility the size of the Solana Beach church, with a regular energy budget of \$140,000, this was a gamechanger.

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Additionally, the platform has allowed the church to preemptively anticipate failing equipment, which is important for a high turnover facility such

as theirs. Having this knowledge allows the church to better plan its budget since they can factor in anticipated repairs rather than being surprised and thrown off balance.

Greater energy efficiency means more operating funds are freed up to support other initiatives

Suddenly, the church's budget had money to spare, with more funds now available for other activities in support of the local community.

Churches may have a skeptical outlook toward technology, but after mCloud's intervention, Ramirez is a believer. He is currently look at expanding mCloud's service to include indoor air quality monitoring which utilizes humidity and air quality sensors to optimize ventilation and airflow to keep the building healthy and free of airborne contaminants – an especially vital function in the post-COVID era.

"Churches need to start looking to the future, because technology is changing everything," Ramirez said.

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