

HOW ENCYCLE HELPED ALLEN THEATRES, A MOVIE THEATER CHAIN,
GAIN CONTROL OF ENERGY LOADS AND REDUCE ENERGY SPEND BY
MORE THAN \$35,000 ANNUALLY.

ANNUAL
ENERGY
SAVINGS
\$3,200
PER SITE

SAVED AN AVERAGE OF **\$35,361** ON ANNUAL
ENERGY COSTS

LOWERED AVERAGE MONTHLY PEAK ELECTRIC
DEMAND BY **26 kW** PER SITE

REDUCED ANNUAL HVAC ELECTRIC CONSUMPTION BY
AN AVERAGE OF **52,012 kWh** PER SITE

LOWERED AVERAGE MONTHLY PEAK DEMAND
BY **15%** PER SITE

ALLEN THEATRES

MOVIE THEATER CHAIN

Allen Theatres is a movie theater chain that expanded their operations to eleven facilities across New Mexico. With higher than average national outdoor temperatures, the HVAC systems at these facilities need to work extra hard to keep patrons comfortable. Finding ways to reduce peak electrical demand and implement load management technologies were necessary to reduce energy costs and consumption.

During hot summer days, moviegoers expect a comfortable auditorium as a refuge from the heat outside. The wide variety of demands placed on an HVAC system presents several challenges for maintaining temperatures. Like most entertainment venues, these theater sites presented opportunities for Encycle's unique Swarm Logic technology to unlock new energy savings.



CUSTOMER CHALLENGES

- Reduce peak electrical demand without affecting occupant comfort.
- Reduce resources spent on calculating and implementing load limiting techniques.
- Participate in demand response program events successfully.
- Access load-level data.
- Late-morning opening hours causing HVAC equipment to work extra hard just to bring auditoriums to desired temperatures.
- Even with proper venting, projection rooms can have tremendous heat loads due to projector lamps.
- Needed a highly responsive control system for big swings in cooling demand as theaters approach maximum occupancy.

SWARM LOGIC RESULTS

Encycle's deep understanding of the unique energy consumption profile of movie theater facilities helped this customer reduce excessive peak demand and electric consumption. Leveraging the HVAC synchronization and control capabilities the Swarm Logic cloud-based solution, a staggered startup function allowed cooling to occur gradually rather than forcing all HVAC units to work all at once at the start of the day.

During peak demand hours, Swarm Logic enabled units to operate as a networked system, responding more efficiently to changing conditions such as outdoor temperature and building occupancy, thereby apportioning energy consumption more logically.

With average annual savings of \$35,361, the movie theater chain is proving that social responsibility and fiscal integrity do not have to be mutually exclusive. Swarm Logic technology helped this customer to qualify for incentives from El Paso Electric, PNM, and Xcel Energy.

ENCYCLE'S SWARM LOGIC SOLUTION

A benefit for the movie theater chain that was immediately felt by the busy facilities management team was the newfound ability to view and control loads across the company's entire portfolio, all from a single platform and with movie schedules changing weekly, scheduling had to be fast and easy. Having integrated seamlessly with a variety of building automation systems, Swarm Logic technology delivered on this requirement.

Another feature valued by this customer is the availability of Encycle's Swarm Mobile app. This allowed the facilities manager to access load data and modify schedules while on the road. He has even logged in to the portal and made changes from his cell phone while attending a soccer game. Swarm Portal is accessible 24/7/365 remotely - a necessary feature for facilities managers who are often on the go and need the ability to make quick changes.

The system also prevented overriding of the thermostats, effectively locking out unauthorized attempts to change the interior temperature of a facility.

"ENCYCLE'S SOLUTION MAINTAINS COMFORT NICELY EVEN DURING HOT SUMMER AFTERNOONS."

ALLAN G.
FACILITIES MANAGER



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