



# QSR SUCCESS SNAPSHOT

**Quick Service Restaurant**  
6455 Adobe Rd, Twentynine Palms,  
CA 92277

4300 SQ FT with Playland  
Hours of Operation: 5:30 am -11:00 pm  
High Desert Climate

## Overview

The QSR at Twentynine Palms is an operation that caters to the value oriented, cost conscious consumers who reside in this predominantly military high desert community.

## Challenge

Rising costs throughout the business, especially in the form of rising energy rates were having a significant impact on the bottom line:

SoCal Edison enacted across the board rate increases averaging 10% annually over last few years.

SoCal Edison moved store to Time of Use Pricing (TOU) plan representing a 54% increase in rates during Peak Period (12:00 pm to 6:00 pm)

Although the franchisee had installed an Energy Management System 8 years prior it was not driving a meaningful reduction in energy consumption.

Identifying lighting as highly wasteful, the franchisee evaluated Lighting Control offerings from the following 3 vendors:

- Franke
- Ektos Evia (upgrade)
- Nimbus9

Through the evaluation process it was determined that neither the Ektos or Franke offerings had the granular levels of control necessary to optimize light levels and energy consumption.

Both the Franke and Ektos solutions could only turn lights on or off and only at the circuit level. The Nimbus 9 solution offered fixture level control with dimming that allows for usage of the abundant natural light levels throughout the day reducing the need for artificial light.

**In the end the selection of the Nimbus 9 solution was an easy one.**

# The Nimbus 9 QSR Solution

## Scope

In order to deliver a comprehensive solution every light fixture on the property was upgraded to LEDs with embedded Nimbus 9 Advanced Controls. This whole property Lighting Control solution included:

### Energy Efficient LEDs

- Parking Lot Lights
- Exterior Wall Lighting
- Lobby Fixtures
- Kitchen and Back of House
- Refrigerator and Freezer
- Restrooms
- Signage (Directionals, Road and Monument)
- DT Menu Boards

## Comprehensive Control Strategies

**Advanced Timers:** Lights are turned on, off and dimmed based on configurable timers. These timers can be set times or based on astronomical events e.g. Sunrise, Sunset.

**Daylight Harvesting:** Adjusting artificial light levels based on the prevalence of natural light. During daylight hours appropriate fixtures operate at 15% of their full light level.

**Occupancy Sensors:** Crew Room, Stock Room and Restrooms maintain a minimum light level when unoccupied. Occ Sensors bring light levels up to full light when occupied.

**Contact Sensors:** Minimum light levels are maintained in Freezer and Refrigerator. Light levels increase to full light when door is opened. Light levels revert to minimum level after set amount of time expires.

**High End Trim:** Full light levels are limited to 85% to capture additional savings without disrupting atmosphere.

**Smart HVAC:** Internet enabled Smart Thermostats allow the coordination of control strategies across HVAC and Lighting loads from one software platform.

This combination of energy efficient fixtures coupled with advanced control strategies means that the store at Twentynine Palms always has the appropriate level of artificial light based on actual need and environmental conditions.

By tuning the Nimbus 9 Controls platform to use exactly the right amount of electricity for artificial light the franchisee has been able to achieve significant savings.

## Results

The Nimbus 9 QSR Solution at Twentynine Palms has produced spectacular results. With a reduction in average monthly electricity consumption of 21.56% these results are having a substantial impact on the bottom line.

### 2015 Monthly Reduction

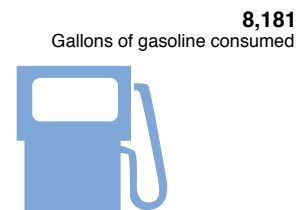
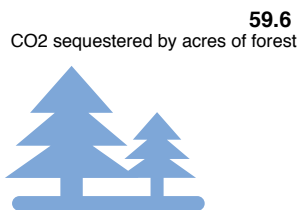
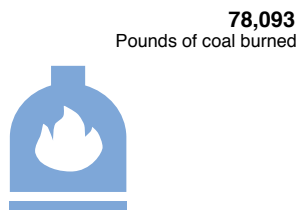
	January Consumption	February Consumption	March Consumption	April Consumption	May Consumption	June Consumption	July Consumption	August Consumption	September Consumption	October Consumption	November Consumption	December Consumption
2014	33,799	33,022	35,542	35,331	40,005	44,877	53,769	45,733	48,270	43,924	33,042	30,524
2015	26,979	26,936	28,614	27,806	29,201	37,048	35,020	37,506	38,928	32,508	26,192	25,663
Total Saved	6,820	6,086	6,928	7,525	10,804	7,829	18,749	8,227	9,342	11,416	6,850	4,861
% Reduction	20.18%	18.45%	19.48%	21.29%	27%	17.45%	34.87%	17.98%	19.35%	25.99%	20.73%	15.92%

**COST SAVINGS  
FOR FIRST  
TWELVE MONTHS**

**\$18,978** (blended kWh cost of \$.18)

Beyond the cost savings, the QSR Solution is delivering meaningful environmental benefits in excess of franchisor’s corporate goal of a 20% reduction in energy consumption in it’s stores by 2020.

By the end of 2015 the store in Twentynine Palms has reduced it’s CO2 emissions by 72.7 Metric Tons, which is equivalent to:



*“ I did a lot of research and what really sold me was the quality. The exterior fixtures are made in Texas, the interior fixtures in Washington state and Korea and all of them carry a 10 year warranty. Lower hardware costs, more lumens per watt, and double the warranty of the products that my franchisor is endorsing.*

*It was an easy decision that is paying off.*

- Twentynine Palms Franchisee