JUMERIAH AL QASR
HOTEL
CASE STUDY

Jumeirah
AL QASR

Melink

KLIMA GLOBAL
GENERAL TRADING LLC

INTELLI-HOOD®

KEY SAVINGS

Total Energy Savings
$21,933/Year

Carbon Dioxide
182,770 lbs./Year

Simple Payback Period
1.6 Year

Operating Expense Reduction
25%

Overview

Jumeirah Al Qasr, one of the iconic luxury hotels in the heart of Dubai, has long been renowned for its commitment to providing a world-class guest experience. In recent years, the hospitality industry has seen a growing emphasis on sustainability and energy efficiency. To further align with this global trend and reduce operational costs, Jumeirah Al Qasr hotel embarked on a transformative journey by implementing Intelli-Hood®, an innovative and intelligent demand control kitchen ventilation system. This case study explores the outcomes of this installation, highlighting significant utility cost savings and energy efficiency improvements.

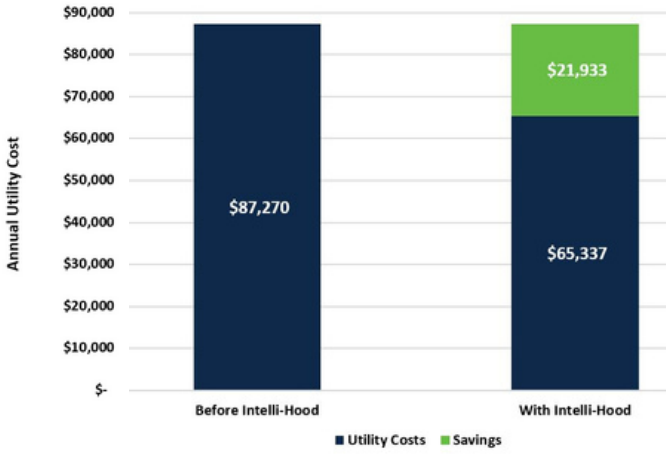
Performance

Before the installation of Intelli-Hood®, Jumeirah Al Qasr had been facing substantial utility costs, particularly in its kitchen operations. The hotel's yearly utility expenditure amounted to $87,270. With a desire to optimize operational efficiency, reduce costs, the hotel management implemented Intelli-Hood's DCKV controls, which resulted in an annual utility savings of $21,933 (**Figure A**).

The Intelli-Hood system was expertly installed in the hotel's commercial kitchen to regulate the exhaust hoods based on real-time cooking activity. This intelligent technology ensures that ventilation is adjusted according to the cooking load, thereby minimizing energy waste and optimizing airflow, as shown in **Figure B** below. The modulation of the kitchen fans helped Jumeriah achieve a 182,770 kWh/year savings and reduce their carbon dioxide emissions.

Annual Kitchen Hood Energy Costs (USD)

Figure A



Jumeirah Al Qasr - Main and Bakery Kitchen

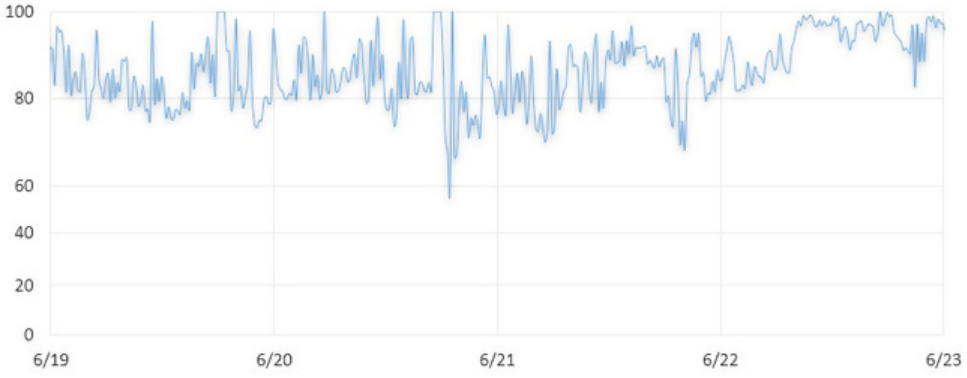


Figure B depicts a sample of Jumeriah Hotel's fan speed over the course of one week. The spikes in fan speed can be attributed to times when the cooking demand was high for the commercial kitchen. The dips in fan speed were due to low cooking demand. This led to an annual kilowatt savings of 182,770.

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