



INTELLI-HOOD®

KEY SAVINGS

Overview

Jumeirah Al Qasr, a prestigious Dubai hotel, is known for its top-tier guest experience. Embracing the industry's shift towards sustainability, the hotel decided to install Intelli-Hood®, a smart kitchen ventilation system, to cut costs and enhance energy efficiency. This study examines the benefits, showcasing substantial savings and efficiency gains.

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 Jumeirah achieve a 182,770 kWh/year savings and reduce their carbon dioxide emissions.

Jumeirah Al Qasr - Main and Bakery Kitchen

Figure B

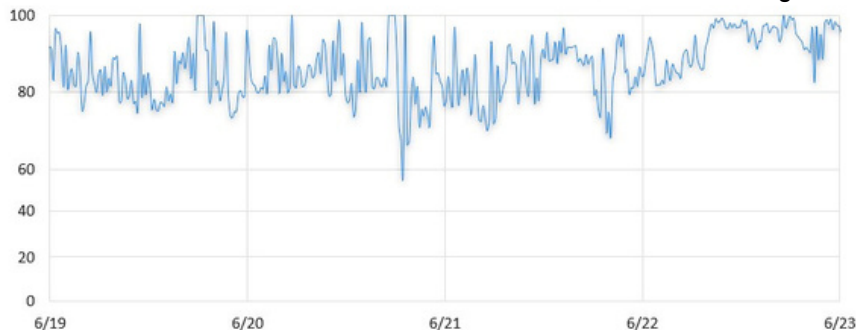


Figure B depicts a sample of Jumeirah Hotel's fan speed over the course of one week. The spikes in fan speed can be attributed to times when the cooking demand was high for the commercial kitchen. The dips in fan speed were due to low cooking demand. This led to an annual kilowatt savings of 182,770.



Total Energy Savings
\$21,933/Year



Carbon Dioxide
182,770 lbs./Year



Simple Payback Period
1.6 Year



Operating Expense Reduction
25%

Annual Kitchen Hood Energy Costs (USD)

Figure A



"Here at Jumeirah Hotels, Melink Intelli-Hood has revolutionized our kitchen operations, delivering unparalleled energy savings and performance. Our decision to partner with Melink and Klima Global reflects Jumeirah's dedication to environmental stewardship and sustainability. Intelli-Hood's DCKV controls ensured efficient practices across our commercial kitchen and proved to be a trusted solution provider."

Darren Warner



Senior Director of Engineering
Madinat Jumeirah

