



Emirates Palace

# INTELLI-HOOD®

## KEY SAVINGS

### Overview

Emirates Palace, situated in Abu Dhabi, boasts world-class hospitality, including its renowned Deli Bakery offering a wide array of freshly baked goods. Seeking to enhance operational efficiency and reduce utility costs, Emirates Palace engaged in upgrading their kitchen facilities, particularly the Deli Bakery.

The Deli Bakery kitchen at Emirates Palace faced high utility expenses due to inefficient ventilation and exhaust systems. Before the intervention, the kitchen incurred substantial utility costs, totaling \$5,239 annually.

To address these challenges, Emirates Palace opted for an advanced solution: the installation of Intelli-Hood's Demand Control Kitchen Ventilation (DCKV) system. This cutting-edge technology modulates commercial kitchen fan speeds, increasing when needed with increased cooking demands and decreasing when demand slows.



**Total Energy Savings**  
\$3,554/Year



**Carbon Dioxide**  
61,308 lbs/Year



**Simple Payback Period**  
2.7 Years



**Operating Expense Reduction**  
68%

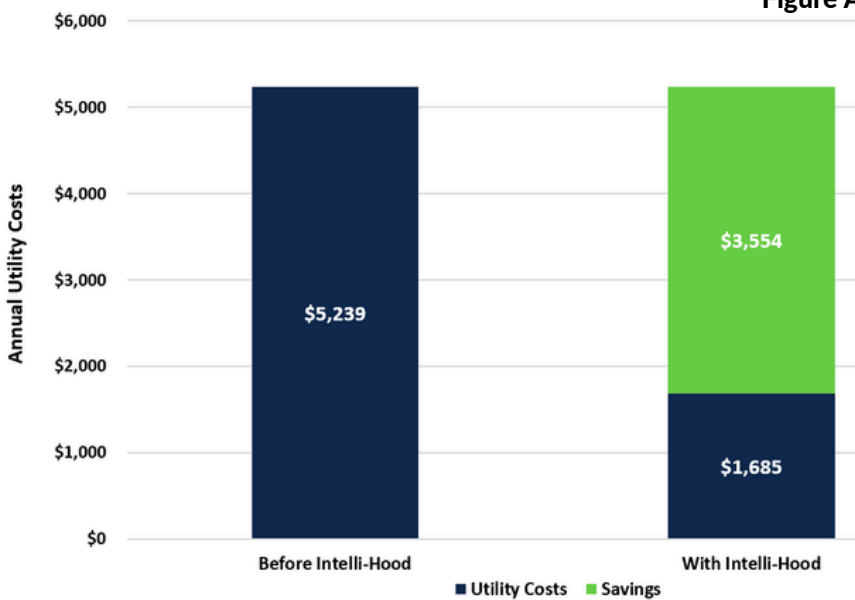
These adjustments help reduce energy waste and enhancing efficiency.

### Implementation

The integration of Intelli-Hood's Demand Control Kitchen Ventilation (DCKV) system into the Deli Bakery kitchen at Emirates Palace was executed with seamless precision. The advanced smart technology incorporated dual sensors, optic & temperature, designed to detect cooking activities in real-time. These sensors, operating with precision, dynamically adjust ventilation and use infrared optics sensors to detect the difference between steam and smoking during cooking.

### Annual Kitchen Hood Utility Costs (USD)

Figure A



## Performance Results

The installation of Intelli-Hood® brought about significant and noticeable improvements across multiple operational areas at Emirates Palace following its implementation.

**Utility Cost Savings:** The Deli Bakery's utility expenses decreased significantly from \$5,239 pre-Intelli-Hood installation to \$1,685 post-implementation. This substantial saving of \$3,554 demonstrated the cost-effectiveness of the solution (Figure A).

**Operating Savings:** Post-installation, the Deli Bakery kitchen experienced a significant 68% reduction in operating costs compared to pre-Intelli-Hood implementation. This drastic decrease showcased the efficiency gains brought about by the intelligent control system.

**Average Fan Speed:** The average fan speed after the installation of Intelli-Hood's DCKV remained at an optimized 42% (Figure B), highlighting the system's ability to modulate ventilation as per the kitchen's demands, preventing energy overuse and reducing energy waste.

**CO2 Annual Savings:** The implementation of Intelli-Hood resulted in an impressive annual reduction of 61,308 lbs of CO2 emissions, underscoring the sustainability benefits achieved by the system.

## Conclusion

Emirates Palace's Deli Bakery successfully mitigated high utility expenses and improved operational efficiency by embracing Intelli-Hood's DCKV control system. Not only did this implementation led to substantial cost savings, but it also underscored the commitment towards sustainability by significantly reducing CO2 emissions. The successful adoption of this advanced technology showcases Emirates Palace's dedication to enhancing both operational excellence and environmental responsibility within their culinary facilities.



Emirates Palace Deli Bakery

### Emirates Palace Fan Speed

