



EMIRATES PALACE
ABU DHABI

INTELLI-HOOD®

KEY SAVINGS

Overview

Emirates Palace Resort in Abu Dhabi, renowned for its opulence, sought to enhance the operational efficiency and environmental sustainability of Broadway Kitchen, a culinary gem within the resort. The installation of Intelli-Hood's Demand-Controlled Kitchen Ventilation (DCKV) controls emerged as the solution to revolutionize the kitchen experience while achieving substantial cost and energy savings.

Implementation

The successful execution of this project was possible due to a meticulously planned installation process, designed to prioritize minimal disruption to daily operations and ensure a seamless transition for Broadway Kitchen. This encompassed the strategic scheduling of an off-peak installation, wherein the meticulous timing during non-peak hours served to mitigate disruptions for both the dedicated staff and valued customers. This careful consideration allowed Broadway Kitchen to uphold its exacting service standards without any compromise to the overall dining experience. Recognizing the paramount importance of a seamless transition, an intensive training program was instituted for the kitchen staff, specifically



Total Energy Savings
\$9,016/Year



Carbon Dioxide
155,029 lbs/Year



Simple Payback Period
2.5 Years



Operating Expense Reduction
40%

focusing on the intricacies of the new DCKV controls. This comprehensive training initiative empowered the culinary team with the knowledge and skills needed to comprehend and effectively utilize the Intelli-Hood system. Notably, Intelli-Hood's smart technology, featuring dual sensing to modulate kitchen fan speeds based on real-time cooking demand, played a pivotal role in optimizing performance and achieving significant energy savings for Broadway Kitchen. This integration of cutting-edge technology not only ensured operational efficiency but also contributed to the establishment of Broadway Kitchen as a leader in culinary sustainability within the luxury hospitality sector.

Annual Kitchen Hood Utility Costs (USD)

Figure A

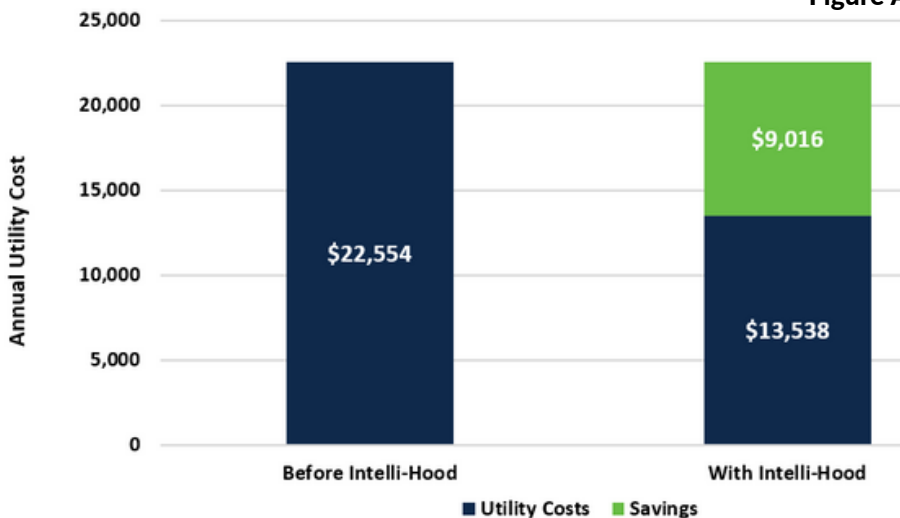


Figure A shows the difference in annual utility cost for Broadway Kitchen based on before the installation of Intelli-Hood's DCKV controls, versus after. The kitchen was able to achieve a savings of 49,736 AED/yr.

Performance Results

The post-implementation results unequivocally demonstrated the tangible benefits realized from incorporating Intelli-Hood's innovative system into Broadway Kitchen at the Emirates Palace Resort in Abu Dhabi.

Utility Cost Reduction: The annual utility cost decreased from \$22,554 to \$13,538, showcasing a remarkable savings of \$9,016 (Figure A). This substantial cost reduction resulted in a 40% reduction in operating expenses and directly contributed to Broadway Kitchen's operational efficiency and financial well-being.

CO2 Emissions Savings: The kitchen's environmental impact was markedly reduced, with a yearly saving of 155,029 lbs of CO2 emissions. This aligns with the commitment of Emirates Palace Resort to environmental stewardship.

Quick Payback Period: The project demonstrated a simple payback period of 2.5 years, indicating the efficiency and economic viability of the investment. This rapid return on investment positions the Intelli-Hood system as a cost-effective solution for commercial kitchens.

Optimized Fan Speed: Post-installation, the average fan speed operated at an efficient 73% (Figure B), showcasing the system's ability to dynamically adjust ventilation rates based on real-time cooking demands. This not only contributed to energy savings but also extended the lifespan of the kitchen exhaust system.

Conclusion

The installation of Intelli-Hood's DCKV controls at Broadway Kitchen within the Emirates Palace Resort stands as a testament to the commitment to excellence, sustainability, and innovation. The seamless integration of advanced technology has not only optimized energy consumption and operational efficiency but has also positioned Broadway Kitchen as a leader in culinary sustainability within the luxury hospitality sector. The project's success reflects the synergy between cutting-edge solutions and the commitment to delivering exceptional guest experiences.



Broadway Kitchen with Intelli-Hood touchpad & sensor.

Broadway Kitchen Average Fan Speed Profile Figure B

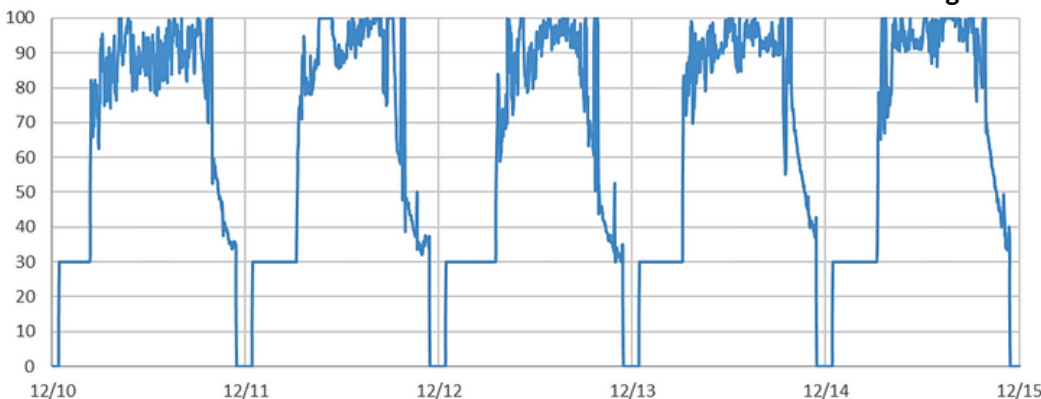


Figure B depicts the fan speed variations throughout five days of operations. The variations in fan speed are a result of changing cooking demand in the commercial kitchen.