

# SHAKE SHACK CASE STUDY



## INTELLI-HOOD® KEY SAVINGS

### Overview

Shake Shack, a popular fast-food restaurant located in Al Barsha Dubai, recognized the need to enhance its operational efficiency while reducing energy consumption. In pursuit of these goals, they decided to invest in Intelli-Hood's Demand Control Kitchen Ventilation (DCKV) controls for their kitchen exhaust systems. This case study highlights the significant improvements and benefits achieved by Shake Shack following the installation of Intelli-Hood.

### Reason For DCKV

Before the installation of Intelli-Hood's DCKV controls, Shake Shack experienced annual utility costs of \$14,798 related to kitchen ventilation and exhaust systems. These expenses included electricity, maintenance, and other operational



**Total Energy Savings**  
\$5,692/Year



**Carbon Dioxide**  
25,626 lbs./Year



**Simple Payback Period**  
1.5 Years



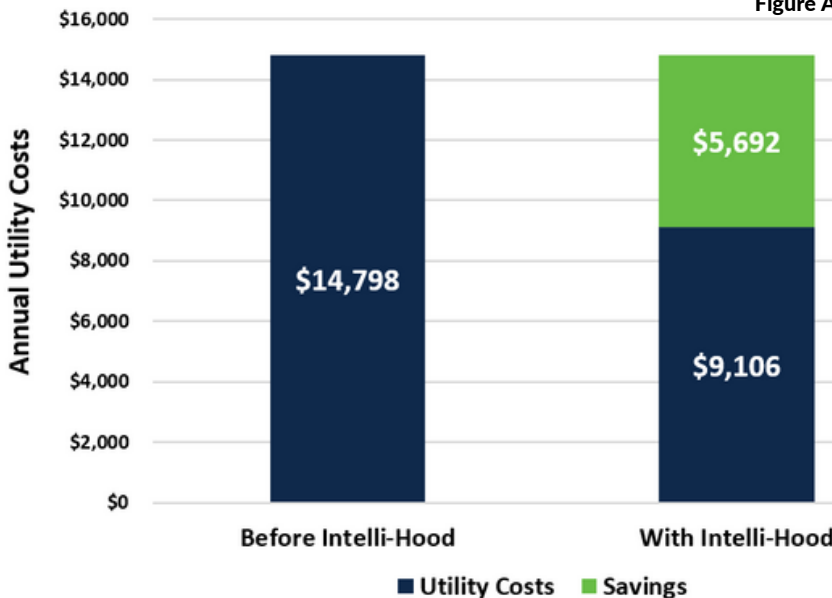
**Operating Expense Reduction**  
38%

costs associated with the restaurant's ventilation system.

Shake Shack chose to invest in Intelli-Hood's DCKV system to better optimize their kitchen's ventilation and exhaust processes. The Intelli-Hood® system uses dual-sensing technology, and is designed to monitor and adjust the exhaust fan speed in real-time. This aligns the system with the actual cooking activities in the kitchen. This ensures that the ventilation system operates efficiently, using only the necessary amount of energy to maintain air quality.

### Annual Kitchen Hood Energy Costs (USD)

Figure A



## Results

Here are the results following the Intelli-Hood® installation at the Al Barsha's Shake Shack location:

**Cost Savings:** Shake Shack initially spent \$14,798 on their kitchen exhaust systems' energy costs. After the installation of Intelli-Hood, their energy expenditure dropped to \$9,106, resulting in substantial savings of \$5,692 annually (Figure A).

**Payback Period:** The restaurant achieved a remarkable 1.5-year payback period on their investment in Intelli-Hood technology, underlining the rapid return on investment and cost-effectiveness of the solution.

**Operating Expense Savings:** Shake Shack experienced an impressive 38% reduction in operating expenses due to the optimized energy consumption facilitated by Intelli-Hood. This reduction had a significant positive impact on their bottom line.

**Environmental Impact:** By reducing the energy consumption and improving kitchen ventilation, Shake Shack also made a positive contribution to the environment. They saved 25,626lbs. of carbon dioxide

emissions annually, making a significant stride towards sustainability and corporate social responsibility.

**Average Fan Speed:** The average fan speed was optimized to 78%, ensuring efficient ventilation and air quality control while reducing unnecessary energy consumption. Figure B shows the variations in fan speed due to cooking demand.

## Conclusion

The implementation of Intelli-Hood's DCKV system at Shake Shack in Al Barsha, Dubai successfully demonstrated substantial operating expense savings, achieved a 1-year payback, and significantly lowered carbon emissions by optimizing their kitchen's exhaust and ventilation system. Intelli-Hood not only lowered their utility costs, but improved their overall sustainability as well.



Shake Shack Barsha Land - Average Fan Speed

Figure B

