

# Case study: Dubai International Airport Carbon Footprint Reduction



Distinguished capabilities in generating savings for Dubai Airports to align with their environmental and sustainability commitments

## About

Name:  
**Dubai International Airport**

Country:  
**United Arab Emirates**

Location:  
**Dubai**

Dubai Airports, the world's busiest airport by international passenger traffic, with state-of-the-art technology strives to ensure all operations and processes are optimized and digitalized with minimal impact on the environmental.

## Challenges

Dubai Airports is invested in optimizing energy management and saving efforts to reduce its carbon footprint. In its quest for optimized green operations, they collaborated with Johnson Controls to implement energy conservation solutions without compromising the day to day operations of the facility. Johnson Controls has always been committed to sustainability, and has a 2040 Net Zero commitment which aligns with the Dubai Clean Energy Strategic vision to transform the Emirate into a global clean energy center by 2050.

## Solutions

In this project, Johnson Controls implemented an in-depth energy audit and analysis in a preselected area of operation - the Central Utility Complexes at Dubai Airports. The audit resulted in an energy performance initiative that includes but not limited to retrofitting existing chillers with medium voltage variable speed drive YK chillers which adapts the motor's speed to the need-base. This optimized energy consumption and reduced CO2 emissions. The plant operation was further optimized with a tailored AI infused OpenBlue digitalized technologies which led to improved efficiencies and optimised operations.

## Results

Johnson Controls was awarded the honor for its distinguished capabilities in achieving significant energy savings for Dubai Airports at the Emirates Energy Awards 2022. The baseline energy consumption of the plant at Dubai Airports was close to 40.989 GWh per annum. The comprehensive and customized energy solution led to

**proven savings**  
**11.9 GWh**