

# CASE STUDY

## Road and Transport Authority

### Dubai

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Electricity consumption reduced by **20.8%** after the installation of the intelligent adiabatic **Smart Cooling™** system on RTA’s cooling equipment.”



### SOLUTION

The intelligent adiabatic **Smart Cooling™** system provides condenser pre-cooling, allowing the condensers to operate at lower temperatures, thus reducing load and increasing COP levels and reducing electricity consumption.

The chillers at RTA were fitted with customized **Smart Cooling™** equipment, allowing them to operate at sustainable rates, even during heat season, and deliver optimum cooling output while consuming less electricity.

### RESULTS

After the installation of the intelligent adiabatic **Smart Cooling™** system on RTA’s cooling equipment electricity consumption dropped by **20.8%**. The return on investment (ROI) period of the installed equipment is 36 months.

### CHECKED AND TESTED FOR PROVEN RESULTS

Efficacy assessment has been conducted and validated. Testing was performed with BTU liquid flow and temperature meter RIF600 and Eniscope energy monitoring equipment.

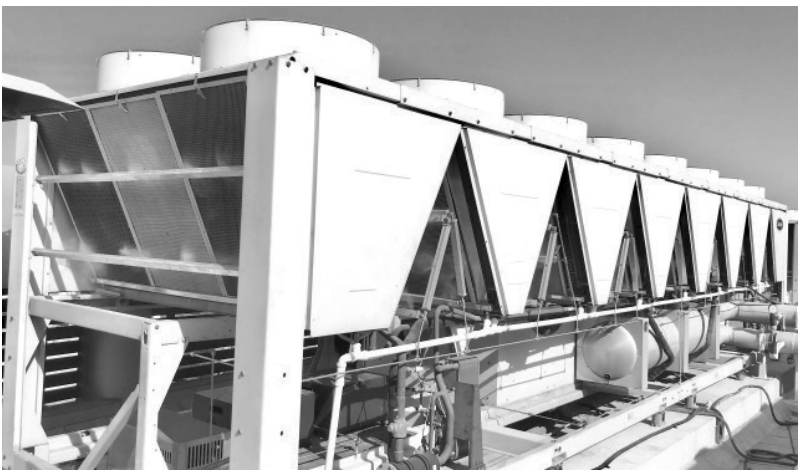
### CUSTOMER

RTA oversees the planning and establishment of guidelines for transport, roads and traffic in the Emirate of Dubai and between Dubai and other Emirates of the UAE, as well as neighboring countries.

RTA’s role is to provide an effective and integrated transport system capable of achieving Dubai’s vision and serving the vital interests of the Emirate.

### CHALLENGE

RTA’s office is equipped with four identical Carrier 30XA 0952 chillers. All four units operated at the same load, which resulted in excessive consumption of electricity, particularly during heat season, when chillers operate at peak performance, which is detrimental to the efficiency and longevity of the chillers’ compressors.



ELECTRIC ENERGY  
CONSUMPTION  
REDUCED BY

↓ **20.8%**

**ROI**  
**36**  
MONTHS