# SHOWCASE PROJECT: SPRINT: 1300 EAST ROCHELLE

## SOLUTION OVERVIEW

1300 East Rochelle is a Sprint-owned and CBRE-managed general business use office building located in Irving, TX. Built in 1984, the facility is a three building complex connected by atriums that span the spacing between buildings and are open to the buildings on both sides. Two buildings are two stories and the other is three.

As part of a portfolio-wide effort to reduce annual energy use by 20%, Sprint conducted energy audits at its major facilities starting in 2011. The audits allowed Sprint to identify inefficient sites as well as opportunities for process, system and operational improvements. The Irving, TX office was identified as a site with significant opportunity for improvement and the ability to be used as a model for energy reduction programs at other sites.

## SECTOR TYPE

Commercial

## LOCATION

Irving, Texas

## PROJECT SIZE

220,000 Square Feet

## FINANCIAL OVERVIEW

Project Cost: $97,000*

## SOLUTIONS

Sprint has deployed several energy efficiency projects at the Irvine site since 2007 including the installation of variable frequency drives for the chillers, changes in operating sequences for variable air volume (VAV) boxes and air handling units, and installing a building automation system (BAS) to replace pneumatic controls.

The following additional Energy Conservation Measures (ECMs) have been completed:

- Changed boiler control loop operations to turn off when outside air temperatures are 60 degrees Fahrenheit or greater
- Added dry bulb economizers to all air handling units (AHUs)
- Added demand control ventilation (DCV) which adjusts outside ventilation based on occupancy levels (through CO2 sensors)

- Re-lamped all 32 watt fluorescent linear lamps with 25 watt lamps
- Installed new high efficiency chillers and boilers to replace older less efficient units
- Replaced air handler units with new technology “fan wall” units that use several high efficiency fan motors instead of a single fan motor

## OTHER BENEFITS

Additional Sprint energy reduction plans at the Irvine facility include the use of several new wireless technologies.

New technologies implemented at the Irvine site will include:

- **Site Tools**: Applications that transform paper based site inspection forms with an e-form mobile app and web portal that will decrease costs and time of doing inspections, improve data quality and enhance decision support for the facility manager. Site tools are used for energy and sustainability assessments, energy audits and equipment logs.
- **Wireless Pressure gauge for the trash dumpsters**: This wireless solution involves putting a communication device in the dumpster that “reads” the waste pressure and notifies the local waste hauler when the dumpster needs to be dumped. This eliminates the need for a set pick-up schedule and unnecessary truck rolls, reducing fuel cost and consumption (and greenhouse gas emissions).
- **Intelligent Lighting Controls** – DainTree Networks: Controlscope software from DainTree Networks will be utilized to provide intelligent lighting controls for the facility. The control system will incorporate wireless motion sensors, daylight harvesting, sensors, and controls for scheduling.

*Project cost and savings represent the incremental cost and savings from installing more efficient chillers and AHUs.

## Annual Energy Use
(Source EUI)

Baseline(2007)
347 kBtu/sq. ft.

Actual(2014)
178 kBtu/sq. ft.

## Energy Savings
51%

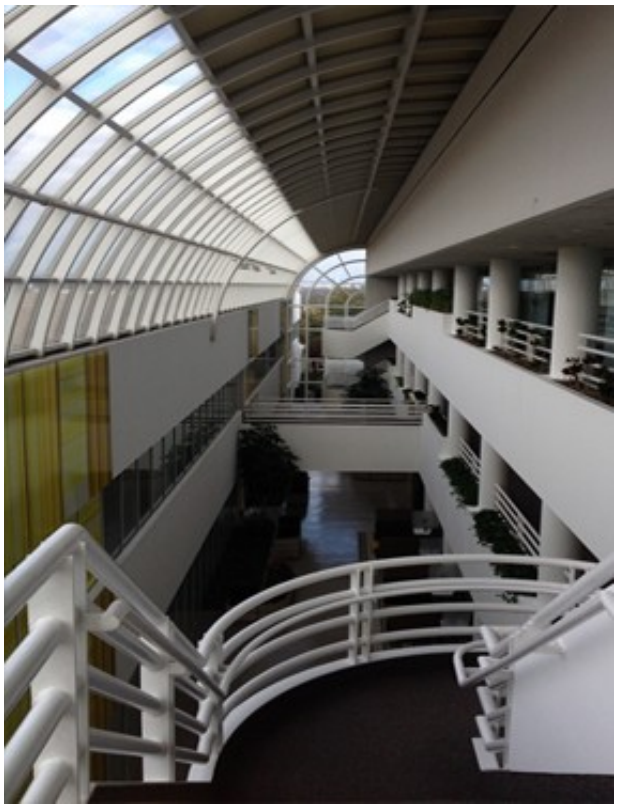
## Annual Energy Cost

Baseline(2007)
$585,900

Actual(2014)
$267,000

## Cost Savings
$30,000*

Outside 1300 East Rochelle



Inside 1300 East Rochelle