



SkySpark

Find What Matters™

Case Study

**Suburban Office Building:
Advanced Analytics to Reduce
Demand Charges**

September 2012

SkyFoundry

www.skyfoundry.com



Contents

- Overview3**
 - Location3
 - Issue Description3
- The Results4**
 - Issue 1: Unexpected Peak Energy Demand4
- Summary5**
- SkySpark® Analytics Software - For the World of Smart Devices6**
 - About SkyFoundry6

Class A Suburban Office Building: Analyze Anomalies in Electrical Demand Project

Overview

One of the great benefits of SkySpark® analytics is that it discovers issues no one is aware of. That also creates a challenge in helping building owners and managers understand the benefits and financial value that analytics can bring to their facilities. Real world examples like the ones captured in our Case Studies show the role of analytics in helping building owners reduce and avoid costs. Here's an interesting example of how anomalies in electrical demand were detected and charges were avoided.

Location

Building type – Class A suburban office building in a market with significant demand charges.

Issue Description

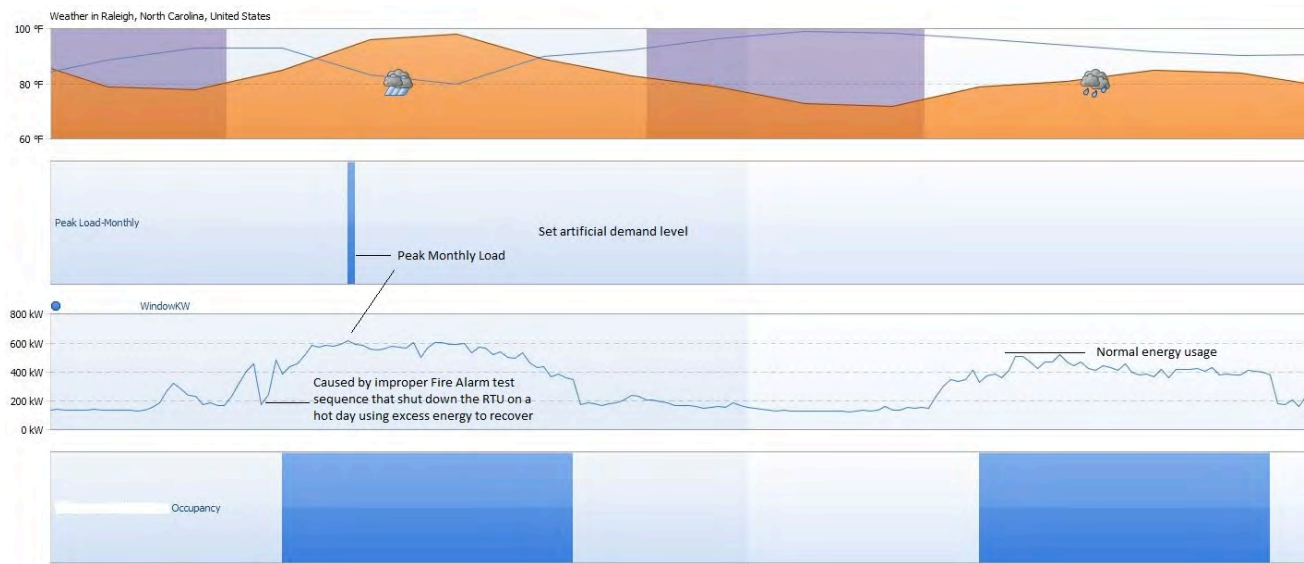
A maintenance technician wasn't trained in the proper Fire Alarm test sequence and ended up shutting down the air handler on a hot day. The air handler then used an excessive amount of energy to recover and set an artificial demand charge threshold. A SkySpark® rule identified the issue with a spark and drew attention to peak energy use at a time when it wouldn't have been expected. In this case, significant demand charges were avoided with a call to the utility to explain what happened. Training of the technician insured that it wouldn't happen again.

With the help of SkySpark® there were several issues that were identified and for some of the problems SkySpark® was able to report the costs of the excess energy being used that went unnoticed.

Case Study: Suburban Office Building

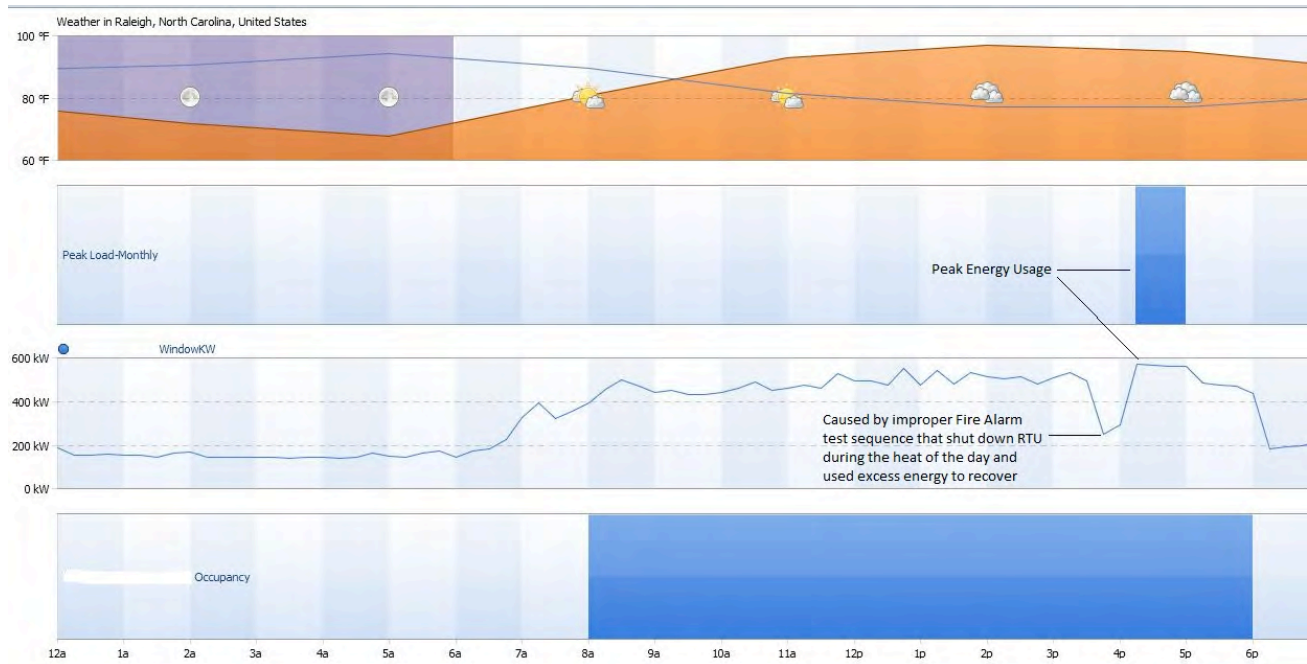
The Results

Issue 1: Unexpected Peak Energy Demand



The SkySpark® view shows the weather conditions, the Spark generated by the demand peak, a plot of actual demand, and the occupancy of the building. (Comments added for clarity).

Case Study: Suburban Office Building



Zooming in on the Spark view timeline shows more detail and the clear impact made on electrical demand when the AHU was shut down and then started back up.

Summary

SkySpark's unique visualization tools helped operators understand exactly how their buildings were operating and where improvements could be made.

Virtually all buildings, old and new, have operational issues. The challenge is to find them in order to eliminate the waste, cost and comfort impacts they cause. **SkySpark® is unequalled in its ability to do this with systems and data of all types.**

Case Study: Suburban Office Building

SkySpark® Analytics Software - For the World of Smart Devices



The past decade has seen dramatic advances in automation systems and smart devices. From IP connected systems using a variety of standard protocols, to support for web services, it is now possible to get the data produced by the wide range of devices found in today's smart devices and equipment systems.

Access to this data opens up new opportunities for the creation of value-added services to help businesses reduce energy consumption and operational costs and to identify opportunities to enhance operations through improved control, and replacement or repair of capital equipment.

Access to the data is just the first step in that journey, however. The new challenge is how to manage and derive value from the exploding amount of data available from these smart and connected devices. SkyFoundry's SkySpark® Analytics Software directly addresses this challenge.

The new frontier is to efficiently manage and analyze data to *Find What Matters*™.



About SkyFoundry

SkyFoundry's mission is to provide software solutions for the age of the "Internet of Things".

Areas of focus include:

- Building automation and facility management
- Energy management, utility data analytics
- Remote device and equipment monitoring
- Asset management

SkyFoundry products help customers derive value from their investments in smart systems.

Learn more at: www.skyfoundry.com

Contact us at: info@skyfoundry.com

Copyright © 2012 SkyFoundry, LLC
All Rights Reserved