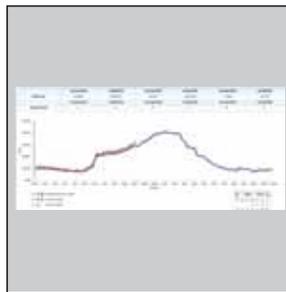


project profile



Peak Savings, Deep Efficiencies

With the help of Honeywell, Guthy Renker Fulfillment Services (GRFS), a logistics and warehousing services provider, is benefiting from the smart grid by participating in an automated demand response (Auto DR) program. Honeywell technology and services help GRFS gain greater control and visibility over energy consumption and peak demand prices while also driving deeper energy efficiency, empowering GRFS to maximize current and future savings.

Honeywell

Powered by
niagara AX
FRAMEWORK®

Smart Grid Solutions Drive Automated Savings

The Customer	<p>Guthy Renker Fulfillment Services (GRFS)</p> <ul style="list-style-type: none"> • Provides businesses with logistics and warehousing services. • Locations include a 235,000-square foot distribution center in Orange County, Calif. • This facility operates from 4 a.m. to 8 p.m., Monday through Friday, with 250 employees working on-site. • Peak energy demand averaged around 500 kilowatts and summer energy bills exceeded more than \$30,000 per month.
The Problem	<ul style="list-style-type: none"> • GRFS' utility, Southern California Edison (SCE), launched a dynamic pricing tariff, tying electricity rates to supply costs, which increases rates during peak periods from \$.13/kWh to \$1.36/kWh. • SCE can call up to 12 peak demand events each summer, which meant GRFS would experience a substantial increase in its electricity bills if it didn't take steps to reduce load during an event. • GRFS lacked an integrated building control system and had previously manually implemented changes to 45 HVAC units, 29 battery chargers and hundreds of lighting fixtures during peak events, which was time consuming and limited potential savings.
Honeywell Solution	<ul style="list-style-type: none"> • GRFS enrolled in a SCE Auto DR program managed by Honeywell so it can automate how its facility responds to energy price signals sent by SCE using the Akuacom Demand Response Management System (DRMS) software. • The DRMS provides a secure path for SCE to communicate with building systems during a demand response event, automatically triggering load-shedding measures GRFS sets in advance. • Honeywell used utility rebates for upgrades that centralized GRFS' building automation equipment and allowed the facility to react to pricing signals. • Additions included: <ul style="list-style-type: none"> - OpenADR Gateway powered by Niagara^{AX} Framework[®] which receives the DRMS signal - Honeywell ComfortPoint[®] Open building management system - Remote input/output modules to oversee forklift battery chargers and commercial thermostats for the facility's HVAC system



Honeywell Implementation

- Following a facility audit, GRFS and Honeywell implemented shed strategies to automatically reduce load in response to peak event signals without impacting business operations.
- The recommended shed strategies include:
 - Precooling the distribution center before an event, then raising the thermostat setpoints by four degrees during peak pricing to maximize savings and maintain comfort.
 - Shifting forklift battery chargers to a locked mode to prevent charging during peak periods.
 - Turning off most lighting and exhaust fans during peak events.
- GRFS was able to benefit from an additional \$8,000 rebate from SCE for their automated technology, generating an estimated \$36,000 in savings.

PEAK AND PERMANENT SAVINGS

Working with Honeywell, GRFS achieved the following:

<p>In the first summer with the Time Of Use tariff, GRFS reduced energy costs by more than 30 percent over the previous year.</p> <p style="text-align: center;">Measurable Savings </p>	<p>Automatic preprogrammed shed strategies during demand response events helped cut energy usage by 146 kilowatts on average, which was approximately 50 percent more than expected.</p> <p style="text-align: center;">Reliable Response </p>	<p>Consolidated control of building management systems provide on-site and remote visibility into real-time and baseline energy usage.</p> <p style="text-align: center;">Visibility and Control </p>	<p>Automation helped uncover additional energy efficiency opportunities to maximize savings, including scheduling forklift charging for only the lowest off peak rates.</p> <p style="text-align: center;">Long-Term Efficiency </p>
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Honeywell Building Solutions

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