

Helping you use electricity more efficiently

Brayden Automation Newsletter

April 2011

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<u>Unexpected Energy</u> Suckers!

Our Commitment to You

Featured Article

"... this project can facilitate a more stable electrical infrastructure to support the needs of the orphanages and the children that live there."

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9388B

Hands & Feet Project

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Energy Sentry- Lending a Hand in Haiti

Brayden Automation Corporation (BAC) continually strives to support various agencies and programs within our community that work towards the betterment of youth, reducing poverty, and increasing energy efficiency. We were recently presented with an opportunity to go beyond our local community and support a program abroad that utilizes all three of these missions,



and we couldn't be more excited about helping this organization! The Hands & Feet Project (H&F) works to provide and care for orphans and abandoned children in Jacmel, Haiti. Started by the band Audio Adrenaline in 2004, they now care for over 80 children ranging in age from newborns to teenagers. They are currently working towards adding additional housing to support an even larger number of children, and hope to care for over 1,000 children in the next five years.

You may be wondering how we got involved with this organization... Continue Reading

Unexpected Energy Suckers!

A large portion of our demand management projects are for smaller commercial buildings like churches. Over the years we've noticed an interesting phenomenon related to churches and demand. Not rocket science, mind you, but an interesting observation just the same.



Utilities categorize small commercial customers as the Small General Service ("SGS") class. This class has an upper demand threshold of about 25KW, sometimes higher or lower depending on your location. As long as the customer keeps their billing demand below this threshold, they can remain on the SGS rate. This is usually an energy-only rate, meaning the customer pays only a kilowatt-hour charge. Simply put, there isn't a separate demand charge on SGS rates like there is on medium and large general service rates.

Why is this important? Many times, the economics of a demand management project depend heavily on...

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Our Commitment to You:

Brayden Automation is dedicated to providing you with the best demand management products available. Contact us if you're interested in finding a solution to use electricity more efficiently and save money on your electric bills.

(888) BRAYDEN www.brayden.com sales@brayden.com



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You may be wondering how we got involved with this organization...

About a year and a half ago BAC launched a residential pilot program in Winthrop, WA with Okanogan County Electric Coop. Ray Peterson, one of the residents who installed an Energy Sentry in his home, became very involved with the program due to his existing commitment to managing his own electric use. In addition to working closely with



Ray Peterson in front of the Energy Sentry installed in his home

the Coop on the demand management program, Ray has taken great interest in the crisis in Haiti. He visited the Hands & Feet orphanage at the beginning of March, and continues to be very involved with the organization. So much so, that he contacted BAC about possibly helping with the energy issues at the orphanage. After some discussion with President Bill Brayden on the needs of H&F, BAC has enthusiastically decided to donate all the equipment necessary to control the orphanages electric loads.

Two 9388B Energy Sentry units will be installed in two H&F orphanages. Each unit will be configured to control up to 16 loads. The types of loads being managed include inverters for charging batteries, well pumping, washing machines, dryers, and air conditioners.

BAC will configure the units to additionally be used in Time Of Use (TOU) mode, in order to assist with the unstable power availability of the local utility company; Electric d' Haiti. Power is usually avalailable between 2pm-2am, and



from 2am -7am the orphanage runs on battery power. However, this can easily be consumed before 7am so electric use is minimized at this time, including shutting off all A/C. From 7am-2pm the orphanage runs off a diesel generator. Efficiently managing H&F's electric loads is crucial to ensure the batteries are kept at maximum capacity to compensate for the volatile power supply.

Our hopes for H&F and the children they care for were best expressed by Ray:

"I pray that this project can facilitate a more stable electrical infrastructure to support the needs of the orphanages and the children that live there. The children depend on the facilities for their survival and education. The goal is to help raise a generation of Haitian children who are nurtured and educated, and that these children may become adults that will have a significant impact on the Haitian society of the future."

BAC anticipates that the project will result in an even greater understanding of how Energy Sentry products can be used to assist other organizations with unique circumstances that are trying to improve their energy efficiency while reducing their electric costs.

We look forward to hearing more about the development of the Hands & Feet Organization, and will update you on their progress in the coming months! If you are interested in learning more about H&F or would like to donate to the organization **Click Here.**





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Why is this important? Many times, the economics of a demand management project depend heavily on the customer remaining on a lower rate. Customers with a limited capacity threshold need to ensure their peak demand stays below the KW limit; otherwise they will be moved to a higher rate class which can mean a huge increase in their electric bills. Several churches that use our system report that it's easy to stay below the threshold under normal circumstances. A large percentage of their total connected load such as the A/C systems, electric heat strips, water heaters and baptismal heaters are easily





At this point you're probably starting to wonder "What is the Interesting Observation?" Simply put... BEWARE of CROCK POTS!

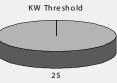
Example:

service rates.

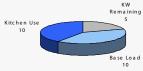
• Lets assume you're on the SGS rate that keeps you at a threshold of 25KW

managed with the Energy Sentry.

• Your church has a 10KW base load in lights and other items such as computers, coffee pots, audio and video equipment etc.



- That leaves 15KW of capacity for everything else
- It's Sunday and happens to be the big Sunday School potluck supper
- The kitchen ranges and several stove-top burners have been turned on adding 10KW

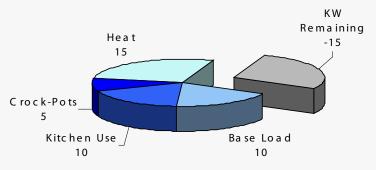


- Church members start arriving with crock pots (because it wouldn't be a pot-luck without crock pots!) and each one uses 250 Watts or .25KW
- Before you know it there are 20 crock pots, hot plates, and other small appliances using 5KW total



At this point you're pushing 25KW and haven't even realized it yet...

• To keep everyone comfortable you turn up the heat which adds 15KW of load



• **BAM!** You've just hit 40KW putting you well above the threshold and now you've been moved to a higher rate... all due to the uncontrolled load

This exact situation happened to one of our customers prior to installing an Energy Sentry. As a result of their pot-luck supper, they were moved to the MGS rate and their electric bill increased by nearly 60%. Now, in order to return to the SGS rate they need to stay under 25KW for another 12 consecutive months.

Takeaway:

If you are trying to stay below the rate threshold, beware of crock pots, space heaters, or other large uncontrolled loads that can easily put you over the limit. The Energy Sentry measures everything but only controls those loads to which it is connected.



Click here to view some of our commercial Energy Sentry Demand Management Systems