

What is Energy Demand Management?

Energy Demand Management involves regulating the rate of energy use so energy is used in a more efficient way. Many times a higher quantity of energy is used at a specific time during the day. This is referred to as a "Peak" in energy use. If you were to graph your energy use there would be peaks and valleys throughout the day (shown in the figures to the right).

By using an Energy Sentry demand management system, you are able to level off the peaks and fill in the valleys, thus using your energy more efficiently. An Energy Sentry acts in a similar manner to the cruise control on your vehicle. You have a set speed (rate of usage) of energy you want to use, and the Energy Sentry controls certain loads to keep the average rate of use below your set limit. An example of loads that would be controlled might be your heating or air conditioning units.

Figure 1 shows that unregulated energy use has very high peaks and low valleys. Figure 2 is more level and has a set limit of 24 so there is no demand over the limit.

Why Should I Buy an Energy Sentry Demand Management System?

The most beneficial reason for using an Energy Sentry is to save money on your electric bills.

Utility companies generally have a commercial non-demand rate for small buildings that stay under a certain KW per month. For example, Xcel Energy in Colorado has a C and a SG rate. The C rate is less expensive for most small customers with lower Kwh use, but you have to stay below 25 KW to qualify for this rate. If you go above 25 KW, you will then be moved to the SG rate (a demand-based rate), likely paying much more for your electricity. For those medium to large churches that are unable to drop to a lower rate, you can still reduce your KW and enjoy substantial savings. Using an Energy Sentry allows you to pay less for the same amount of electricity year-round.

Often, people try to control energy use themselves which can be very frustrating and rarely works. One of our past customers, Scott Cummings from The United Church of Christ in Simi Valley, California summarized this.

"The demand controller has definitely made my life easier. It takes care of the demand limiting automatically so that we don't have to attempt to watch the consumption ourselves, which did not work well."

Another benefit to using an Energy Sentry is that by consuming energy more efficiently you are helping the environment.

There are peak periods during the day where the utility must supply the maximum amount of power needed in their territory. In order to meet this need, the utility must either bring on additional peaking generation or buy expensive peaking power. The more people that use an Energy Sentry, the smaller the peak periods, thus fewer power plants are needed and the more efficiently the utility operates.

Figure 1

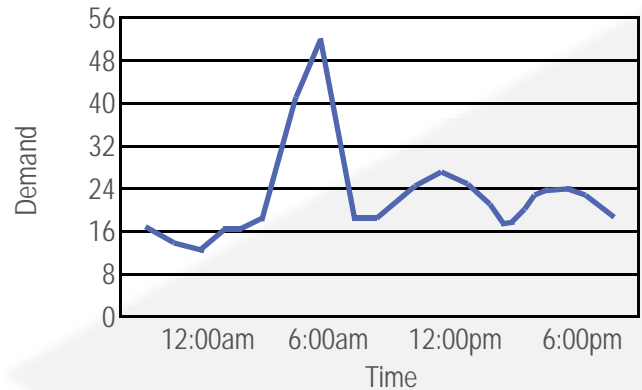
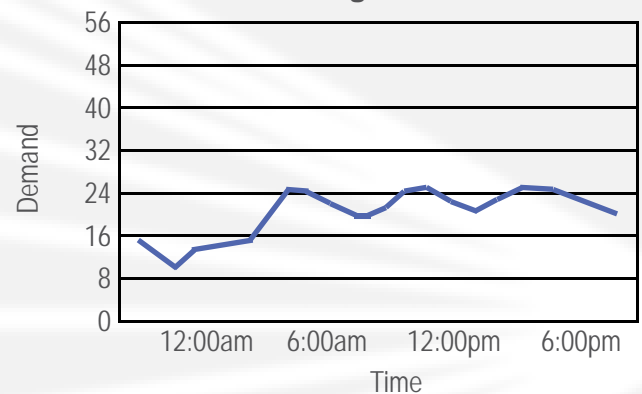


Figure 2



Scott Cummings in front of The United Church of Christ's Energy Sentry unit

Am I a Good Candidate for an Energy Sentry?

- The customers that can benefit the most from an Energy Sentry are those who use electricity sporadically, meaning there are only a few periods of intensive energy use daily.
- Churches are great candidates because they have very identifiable peak usage periods that can be leveled out with an Energy Sentry.
- Contact your utility company to find out what rate you are on and if you can drop to a lower rate or save a substantial amount of money on your electric bill by managing your demand.

What will the Energy Sentry Control?

Common loads for Churches:

- Electric Heating units
- Air Conditioning units
- Electric Hot Water Heaters
- Baptismal Heaters
- Other non-critical loads

Demand Management Systems do not affect your comfort or convenience. You are still able to use whichever appliances you want at any given time. The system will compensate by managing controlled loads while uncontrolled loads are operating.

How much Money will I Save?

We have worked with numerous churches over the past 30+ years to save them extensive amounts on their electric bills. On average the Energy Sentry saves 10-40% on electric bills per year for our commercial customers depending on each building's unique situation.

The following examples demonstrate savings for some of our past customers:



United Church of Christ, Simi Valley California
Estimated average savings of \$205 per month

➔ **Saving \$2,500 per year!**

Journey Church of Windsor, Windsor, Colorado
Estimated average savings of \$500 per month

➔ **Saving \$6,000 per year!**

Community Presbyterian Church of Waldport, Waldport, Oregon
Estimated average savings of \$160 per month

➔ **Saving \$2,000 per year!**

Read what some of our customers are saying:

"We had one event at the church where all of the lights inside and out were on, we were using the kitchen equipment, and it was 90 degrees outside. All of the AC units ran, but the controller made them take turns, and we had no complaints. Without the controller, we definitely would have been over the 20KW limit. I couldn't be happier. The utility company has now put us back down to the lower GS-1 rate."

-Scott Cummings
United Church of Christ

"I am writing to express my appreciation for your work at St. Nicholas. The Demand Controller you installed is doing a magnificent job: our utility bills have literally been cut in half, and we have not had to sacrifice comfort or operations. It has taken us less than half a year to recoup the costs of the installation. I am thankful for your integrity and the quality of your product and services."

-Reverend Ken Ross
St. Nicholas

"We are thrilled with the savings we are seeing on our electric rates. Thank you again for all that you did to help us."

-Pastor Steve Elmore
Journey Church of Windsor

"I highly recommend Brayden Automations' Energy Sentry instrument for saving energy costs. Interestingly there has been absolutely no perceivable change in people's comfort. I've not had one complaint that the building is not cool enough from any church attendee. The folks at Brayden Automation have the expertise to help you save money each year by using their device. I'd recommend their services highly."

-Chris Perciante
Faith Evangelical Church

