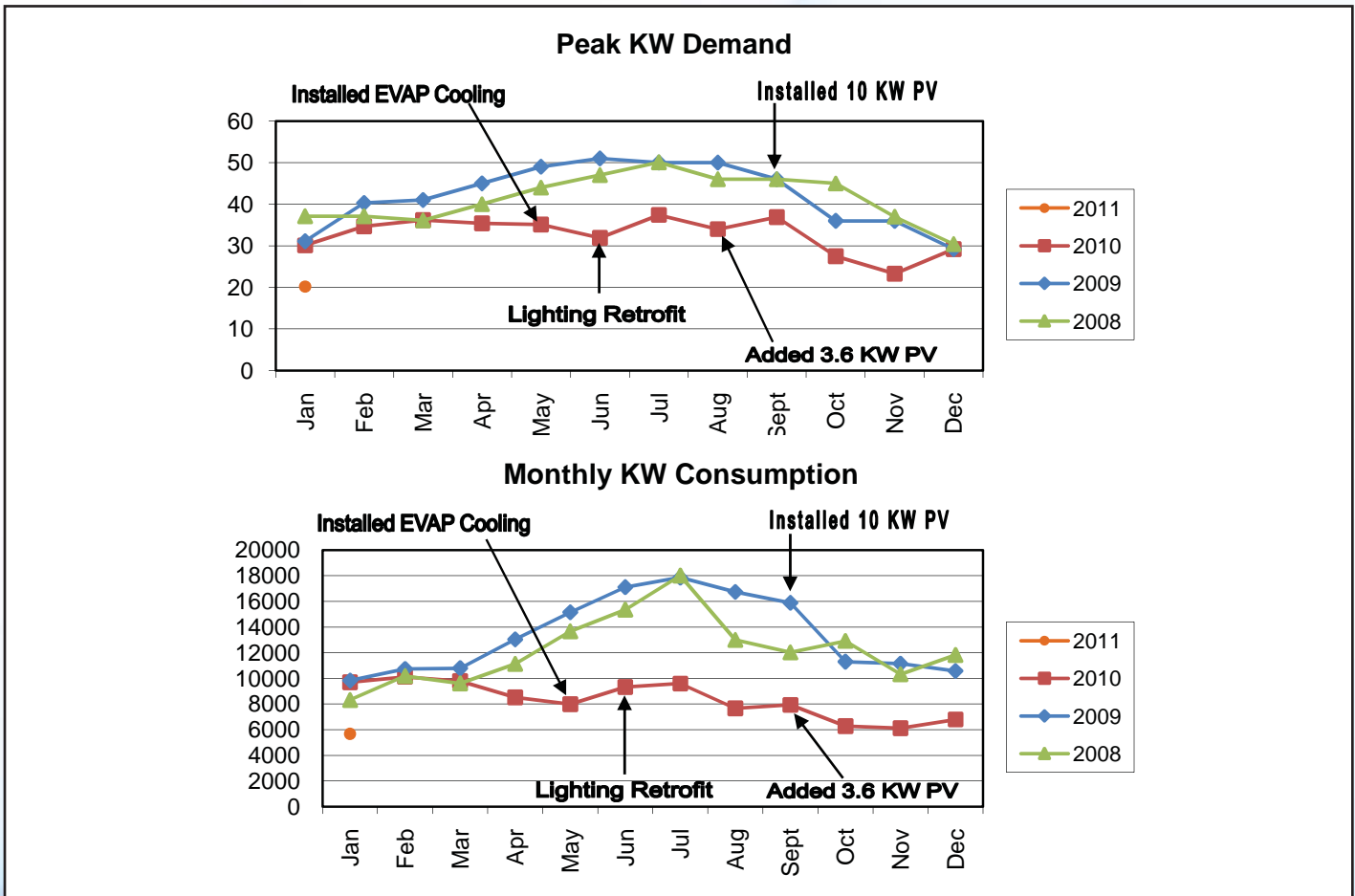


ENERGY DATA USING OUR AUTOMATION SYSTEM

AS OF 01/11 - ELECTRICAL KW DEMAND



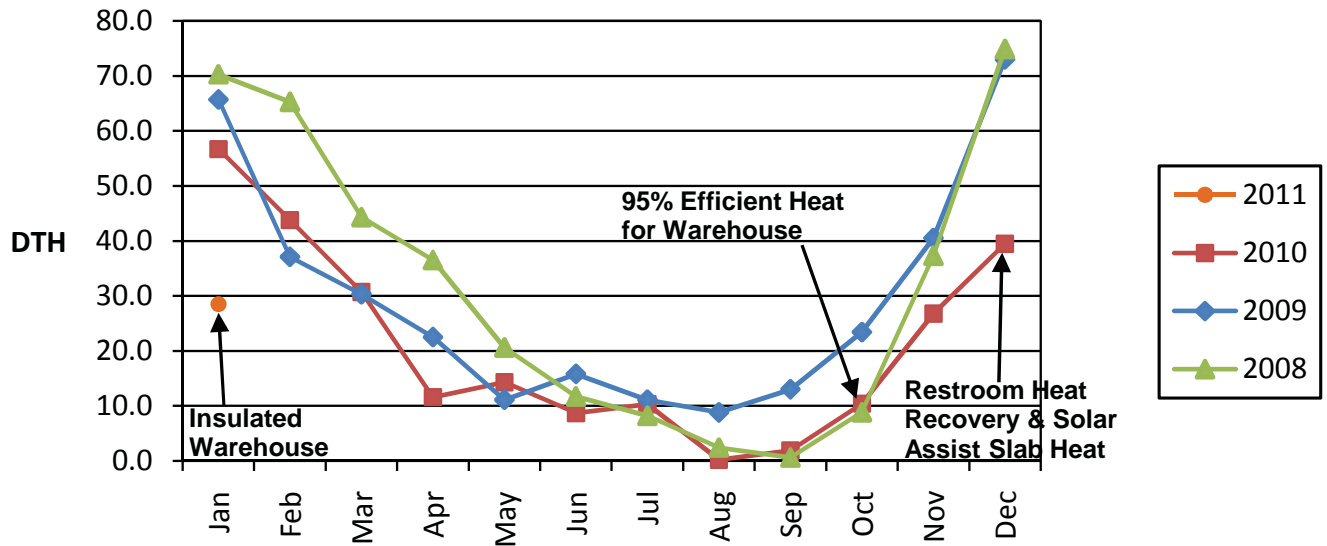
The graphs show our KW demand and KW consumption over the last three years. In spite of hiring a number of new employees, which expanded our office electrical consumption, our grid-tie solar array (brought online in August of 2009) has offset our electrical increase by producing an average of up to 1,500KW per month (about 15% of our monthly electrical usage). The energy efficiency retrofits in 2010 (changing our T12 lights to T8 and replacing our aging DX cooling units) have reduced our total system daytime demand from an average of 50KW to about 34KW during a typical summer office day. The production of 12KW from our solar arrays drops the power purchase demand to 22KW. The savings from our HVAC, lighting, and plug load retrofits average 16KW. We did not have sub-metering to break out the savings in each of the categories until we installed our new automation system in 2010.

Our July 2010 monthly KW usage of 9,348KW was almost 7,000KW lower than the average of our July 2008 and 2009 usage (16,234KW). Additional dollar savings came from cutting our KW demand charge by almost 50%. Our August utility bill of 7,671KW showed the additional savings realized by finishing our lighting retrofit and bringing online 3.6KW in additional solar PV generating capacity. As of the day this brochure was written (September 15, 2010 at approximately 2:00 p.m.) our solar generated was 11KW, our HVAC KW was 14.2, and our Murray City demand was 27KW.

On-site solar generation, combined with retrofitting our building with higher efficiency equipment, is the means whereby we have achieved over 50% in energy savings. Our automation system has provided the instantaneous electrical usage data that made us aware of the areas of inefficiency, enabling us to plan our retrofit project to maximize our energy savings.

GAS DTH DEMAND

Monthly Gas Usage



The original mechanical system included hydronic slab heat serving the perimeter of the first floor office area of the building. The East two thirds of the building on first and second floors had duct mounted hot water reheat coils. The West third first and second floors of the building had a gas fired rooftop unit with a nominal efficiency of 65 to 70%. The warehouse had gas fired unit heaters with nominal efficiency of 55 to 65% with 8 inch open draft flues on each unit heater.

All natural gas consumed in the building is done via 95% direct vent condensing boilers with hot water now piped to all areas of the building which were formally served by unit heaters and/or gas rooftop units. In addition, the solar hydronic panels were tied in to provide supplementary radiant slab heat for the perimeter, domestic hot water heating and VAV hot water reheat assist. 500 CFM of toilet exhaust air is now processed through the Spec- Air unit's indirect cooling section in the heat recovery mode to recover 70% of the heat exhausted from the building. This provides additional tempered fresh air into the building and thereby reducing building infiltration. This equates to a savings of 14,500 BTUs per hour at 30 degrees OSA temperature. Insulation was also added on the warehouse walls, increasing the insulation value of the masonry construction from an R4 to an R15.

Supply air temperature reset algorithms have been employed to minimize the amount of reheat required. As the air system operates at 100% OSA above 55 degrees OSA, the reheat system is turned off with the VAV boxes assuming a cooling only mode, thereby eliminating reheat.

We have observed at 30 degrees OSA temperature solar heat providing 14,000 BTUs per hour to the slab while heating all domestic hot water. At 50 degrees OSA temperature, the solar has provided all slab, domestic, and VAV reheat water.

The energy consumption recorded for this heating season, including January, documents at least a 50% reduction of natural gas consumption for the building by implementing these energy savings enhancements.