

## **"Star Trek Meets Midtown"**

By David Holtzclaw of Transduction Technologies

In June, I did a home energy evaluation on a house in Omaha. The home owner was experiencing high utility bills in 2014 and wanted a solution. I identified several upgrades the house needed including air sealing, more attic insulation, and sealing the ductwork, just to name a few. However, the home owner contacted me again in August complaining about a **REALLY** high July OPPD bill when the weather in July was quite mild. After several phone calls, the issue was a recently installed electric furnace. The company that installed the furnace didn't wire it correctly, and it was turning on every time the air conditioner turned on. The contactor not only fixed the problem, but also paid for their OPPD bills for the past 6 months. How's that for service!

What bothered me most was that I was unable to identify the problem. The analysis of their utility bills didn't show the problem because we only had utility bills through May, before the air conditioner was regularly running. Secondly, it's hard to identify equipment issues with monthly utility bills – the resolution needed to isolate the problems, just isn't there. That's why we, any many other home performance companies nationally, are now using data loggers on a regular basis.

Data loggers are just what they sound like – little pieces of equipment installed at the outlet or in your electrical panel that enable you to track your electrical usage in both real time and your electrical usage history over any period the systems are installed. Real time energy usage can be monitored over mobile devices as well. These systems are inexpensive (\$200-\$400) and great at: 1) identifying energy hogs; 2) identifying malfunctioning or incorrectly installed equipment like the example above; 3) or verifying energy savings after a home improvement project. Soon, the Home Performance Guild of Nebraska (<http://www.hpguildne.org/>) will be using data monitors as a way to verify energy savings on their home improvement projects. For more information on electrical data monitors, click here: <http://www.transductiontechnologies.com/data-monitoring.html>