Rachel,

From the partner letter that was sent regarding the question of revising the Energy Star traffic signal standard, the question would seem to be, how important is saving between 5 and 78 kWh per year?

That's an average of just over 40 kWh per year per traffic signal. Intersections have between four and eight signals per intersection, or an average of six. 40 kWh per signal, times six signals per intersection, comes to 240 kWh per intersection per year.

In my home, I use roughly 1,000 kWh per month, or 12,000 kWh per year. If I look at fifty intersections saving 240 kWh per year, that equals the 12,000 kWh per year that I use in my home for lighting, cooking, and air conditioning. 50 intersections is roughly a 7 block by 7 block area. From this perspective 40 kWh per year begins to look rather attractive.

In the last 10 years natural gas prices have doubled. In the last 30 years natural gas prices have gone up 10 fold. If prices for electricity follow a similar pattern, then this seemingly small amount of electrical savings may not be so small in our future.

While the savings of the new standard range for traffic lights may seem small, Energy Star does more than just identify savings. The Energy Star label stands as a symbol of higher energy quality. It is an award for ingenuity. It is a selling tool. It recognizes companies for innovation in achieving higher efficiency.

Those companies that achieve the Energy Star label for their products push those companies that do not. Energy Star companies push others to find better ways to manufacture their products so that they can compete. Energy Star serves as the mother of efficiency innovation.

The EPACT standard for traffic lights has basically made all traffic lights LED's. Revising and maintaining the Energy Star specification for traffic signals is basically creating a standard for LED lights. LED lighting may very well be the next great step in efficient lighting technology. Revising and maintaining the Energy Star specification for traffic lights, may just be the impetus needed for that next step, by encouraging a company to look at other manufacturing processes in an attempt to achieve the Energy Star label to stay competitive. Looking at other manufacturing processes may very well lead to the technology required to make LED lighting common place for all our lighting needs.

While revising the Energy Star traffic light standard has an associated cost, this cost may also be a savings for a future Energy Star LED lighting standard, provided lessons learned from this revision can be used in developing that standard.

The Nebraska Energy Office would like to see the Energy Star standard for traffic lights revised and maintained.

Sincerely,

Bruce Hauschild, PE, CEM
Energy Technical Advisor
Nebraska Energy Office