



What's the Operating Cost of Digital Signs?



JUDGING THE POWER COST

People interested in digital messaging often ask, “What's the operating cost of digital signs?”

That's a very valid question. People investing tens of thousands of dollars in digital signage need a basis to formulate an accurate operating budget. So is there an easy way to estimate the annual cost of operating a digital sign?

The answer is yes, once you determine what type of equipment is right for your custom situation. The trick is figuring out what's right:

- **Size of display** (Determined by viewing distance, speed of passing viewers, and local codes)
- **Monochrome or full-color** (Determined by content type and personal preference)
- **Pixel pitch** (Determined by viewing distance and speed of passing viewers)
- **Expected Hours of Operation per Day** (Determined by personal preference and sometimes code)

SEEK PROFESSIONAL HELP

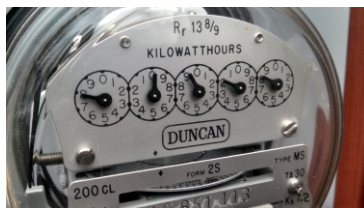
People considering digital signage should consult with a knowledgeable local electric sign company to help them with proper equipment selection. Once you know the specs, it's just a matter of plugging in the sign's power requirements, your estimated usage, and local cost per kilowatt hour to come up with an operating cost.

The leading US brands of digital signs are Daktronics, Watchfire, Optec, and Formetco. Daktronics has an “Operating Cost Calculator” tool that inputs the max wattage of your particular equipment but takes into consideration power reduction for content usage and day/night brightness fluctuations. This simply means that some of your message content will use less than 100% of the available LED's so the sign never operates on max power. (An example is black backgrounds use less power than white or colored ones.) Likewise, night and cloudy-day messages consume less power than messages in full sun with Daktronics equipment due to their automatic dimming features.

Competitive second-tier brands of digital signs may not have built-in dimming features that maintain sign appearance and reduce power consumption using internal timers or light sensors. The difference in power cost in an offshore model running 24 hours at 100% because it has no dimmer, versus a market leader brand running at 25% at night can make a big difference in operating costs.

For a good operating cost example, let's consider a 2-sided Daktronics 3500 Series Full-Color (RGB) Model, 8' wide X 4' tall, with a 24 x 64 matrix (34MM pixel pitch resolution), 1,860 max total watts. Using this configuration and an average electric utility cost of 8 cents per kilowatt hour (a good average commercial utility cost for Central Virginia), the estimated daily cost of power is 63 cents, and the estimated annual power cost using the calculator tool is \$225.37. Take the same 8' wide X 4' tall sign, but boost the matrix size to 64 X 144 (16 MM pixel pitch) and wattage to 3,620, and the power cost doubles. Considering an average LED pole-light in a parking lot costs about \$240* to operate year round, 12-hours a day, the operating cost of an average 32 square foot, double sided RGB digital sign would be about the equivalent of adding a parking lot light or two at your site, depending on the resolution you need. (*Source: Lighting Research Center)

I hope this information was helpful as you investigate the costs of owning and operating your own on-premise digital advertising sign. Our project managers have access to many tools that can help you determine the right sign for your site with a cost estimate, return on investment and utility cost forecast.



“Once you define the spec's it's a matter of plugging in power requirements, usage time & cost per kWh.”

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