

With New Computer Standards, California Again Takes the Lead

The California Energy Commission recently issued the first state-mandated energy efficiency standards for desktop computers and monitors. The CEC projects that the requirements will save 2,332 billion gigawatt-hours of electricity per year and reduce consumers' electricity bills by a total of \$373 million annually. CEC Commissioner Andrew McAlister in a press release called the new standards a "win-win" that produces consumer savings and lightens the load on the state's electricity system. The reduced energy use will also have climate mitigation benefits.

For desktop computers, the standards establish baseline energy use targets and focus on achieving reductions when computers are not in use (e.g., in sleep or off mode). CEC explains that the standards "drive improvements in desktops over multiple design cycles." The first-tier standards kick in January 2019 and aim to reduce desktop computer energy use by about a third. The second-tier standards apply in July 2021 and are projected to reduce energy use by half.

Only 10 percent of current desktop computers in the state meet the new standards, according to a blog post by Natural Resources Defense Council's Pierre Delforge. CEC estimates the initial cost of desktop computers will increase \$10 dollars during the period that the first-tier standards apply but that consumers will save \$44 dollars in electricity bills over five years.

The standards also establish the amount of power a computer monitor can use when on, off, or in sleep mode, and are designed to encourage the use of more efficient LED back lights and screen technologies. For example, the standards call for lim-

ited energy use reductions for certain laptops which on average are much more efficient than desktops. Over 70 percent of California's 23 million laptops already meet the new standards, according to CEC.

Delforge's post explains that the CEC standards for desktop computers are more stringent by 30 percent than the federal government's Energy Star Program voluntary efficiency standards. The CEC laptop standards are comparable to the federal voluntary standards.

The impact of the new standards is notable. CEC estimates the reduction in energy use will equal the amount of total energy used by 370,000 homes — the total number of homes in San Francisco and San Luis Obispo. But, the standards also are notable for several other reasons.

For a small upfront cost, new desktop PCs will give consumers significant savings

First, the standards highlight the approach that California and other progressive states are poised to take during the new Congress and administration. California Governor Jerry Brown has made it clear that he does not intend to sit back while the new president dismantles environmental protections or at best fails to move forward on critical issues such as climate change. In a CEC blog post, the Consumer Federation of America's Mark Cooper recognizes that "California's steady leadership on energy efficiency is crucial, especially at this moment of political change on the national level."

Second, what happens in California, unlike Las Vegas, tends not to stay in California. The sheer size of the state economy influences national and international markets. Labeled the "California effect" by University of California Professor David Vogel, the state has led the country in promulgating ambitious environmental



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regulations, such as tailpipe standards, that have later been adopted by other states and in federal regulations. As NRDC's Delforge notes, "Because California is home to one in eight U.S. consumers, and manufacturers do not typically maintain separate inventories for different states, the savings are likely to have an impact nationally and even globally."

Cooper echoes this point: "The state has led the way on other efficiency policies and we expect it will have an even greater influence on computers. . . . Silicon Valley is the heart of digital revolution, and we expect California to drive both U.S. and global computer development."

Third, the regulations were developed over a several-year period in cooperation with industry and other stakeholder groups. This makes it less likely that the rules will be challenged and more likely that they will be implemented on schedule. The Information Technology Industry Council explains in a press release that the "collaborative effort" brought "technology companies and environmental advocates together to achieve the highest energy efficiency standard possible without undermining the innovation industry powering California's economy."

The new efficiency standards are an example of what more and more states should do — work collaboratively with industry and other stakeholders to establish needed environmental protection measures.