

March 10, 2011

Let There Be More Efficient Light

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LAST week Michele Bachmann, a Republican representative from Minnesota, introduced a bill to roll back efficiency standards for light bulbs, which include a phasing out of incandescent bulbs in favor of more energy-efficient bulbs. The “government has no business telling an individual what kind of light bulb to buy,” she declared.

Opponents of the new standards, to be in place by 2014, draw on the odd-couple coalition of Tea Party Republicans and organized labor. They have positioned themselves as defenders of American tradition in the face of big government: another Republican representative, Joe Barton of Texas, waxed lyrically with two colleagues about “the incandescent bulb that has been turning back the night ever since Thomas Edison ended the era of a world lit only by fire in 1879.”

But this opposition ignores another, more important bit of American history: the critical role that government-mandated standards have played in scientific and industrial innovation.

Republicans are right, of course, to praise inventors like Edison for their pioneering advancements at the close of the 19th century. But inventions alone weren't enough to guarantee progress.

Indeed, at the time the lack of standards for everything from weights and measures to electricity — even the gallon, for example, had eight definitions — threatened to overwhelm industry and consumers with a confusing array of incompatible choices.

This wasn't the case everywhere. Germany's standards agency, established in 1887, was busy setting rules for everything from the content of dyes to the process for making porcelain; other European countries soon followed suit. Higher-quality

products, in turn, helped the growth in Germany's trade exceed that of the United States in the 1890s.

America finally got its act together in 1894, when Congress standardized the meaning of what are today common scientific measures, including the ohm, the volt, the watt and the henry, in line with international metrics. And, in 1901, the United States became the last major economic power to [establish an agency](#) to set technological standards.

The result was a boom in product innovation in all aspects of life during the 20th century. Today we can go to our hardware store and choose from hundreds of light bulbs that all conform to government-mandated quality and performance standards.

Technological standards not only promote innovation — they also can help protect one country's industries from falling behind those of other countries. Today China, India and other rapidly growing nations are adopting standards that speed the deployment of new technologies. Without similar requirements to manufacture more technologically advanced products, American companies risk seeing the overseas markets for their products shrink while innovative goods from other countries flood the domestic market.

To prevent that from happening, America needs not only to continue developing standards, but also to devise a strategy to apply them consistently and quickly.

The best approach would be to borrow from Japan, whose Top Runner program sets energy-efficiency standards by identifying technological leaders in a particular industry — say, washing machines — and mandating that the rest of the industry keep up. As technologies improve, the standards change as well, enabling a virtuous cycle of improvement.

At the same time, the government should work with businesses to devise multidimensional standards, so that consumers don't balk at products because they sacrifice, say, brightness and cost for energy efficiency.

This is not to say that innovation doesn't bring disruption, and American policymakers can't ignore the jobs that are lost when government standards sweep older technologies into the dustbin of history.

An effective way forward on light bulbs, then, would be to apply standards only to

those manufacturers that produce or import in large volume. Meanwhile, smaller, legacy light-bulb producers could remain, cushioning the blow to workers and meeting consumer demand.

Technologies and the standards that guide their deployment have revolutionized American society. They've been so successful, in fact, that the role of government has become invisible — so much so that even members of Congress should be excused for believing the government has no business mandating your choice of light bulbs.

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