Op-ed by Amory B. Lovins published 18 January 2014 by *Asahi Shimbun*, Tōkyō, Japan

Japanese-language copyright © 2014 by *Asahi Shimbun*. Reprint rights kindly licensed to Rocky Mountain Institute.   
English original copyright © 2014 by Rocky Mountain Institute.

The published Japanese version was slightly abridged from this English original to meet the newspaper’s space constraints.

*How opposite energy policies turned 3/11*[[1]](#footnote-1) *into a loss for Japan and a win for Germany*

Japan is poor in fossil fuels—but among major industrial countries, the richest in renewable energy like sun, wind, and geothermal. Japan has nine times Germany’s renewable energy resources, but makes nine times less of its electricity from them (excluding hydropower), because Japan’s utility oligopolies block competitors.

Before 3/11, both Germany and Japan were nearly 30% nuclear-powered. After 3/11, Germany promptly closed 41% of its nuclear power capacity, but replaced it all *in the same year*, mainly with renewables, Japan instead imported costly fossil fuels.

Japan suffered discomfort from inadequate electricity. Germany didn’t, and continued to export more electricity than it imported, even to nuclear-powered France.

Japan’s economy wilted while Germany’s thrived. Japan’s electricity prices and carbon emissions soared, but Germany’s whole­­sale electricity prices fell nearly 60% and its power plants and industries emitted no more carbon.

Japan has more land, people, GDP, sun, and wind than Germany, but has built three-fourths less solar power and almost no windpower. These produced 0.97% of Japan’s 2012 electricity—one-third India’s share, or #29 worldwide. In Germany, full grid access for renewables, full competition, weakened monopolies, and predominantly local ownership made 2012 electricity 23% renewable; in Denmark, 41%. In the first half of 2013, Spain averaged 48% and Portugal 70%.

Germany is also raising its already-high energy efficiency. But Japan ranks tenth of 11 major industrial nations in industrial cogeneration and commercial building efficiency, eighth in truck efficiency, and next-to-last in car efficiency. All need *kaizen.*[[2]](#footnote-2)

Since 2008, half the world’s added electric generating capacity has been renewable. So was 49% of U.S. and 69% of European capacity added in 2012—when China made more electricity from non-hydro renewables than from nuclear power. Japan is heading in the opposite direction.

To revitalize its economy and politics, Japan needs an efficiency-and-renewable-energy *hiyaku*[[3]](#footnote-3) that enables the new energy economy, not protects the old one. Japanese frogs jump too, says Bashō’s haiku “*Furuike ya kawazu tobikomu mizu no oto*”.[[4]](#footnote-4) But we’re still waiting for *mizu no oto*.[[5]](#footnote-5)

***Physicist Dr. Amory Lovins is Cofounder and Chief Scientist of Rocky Mountain Institute, senior author of* Reinventing Fire*, and a member of the Executive Board of Japan Renewable Energy Foundation.***

1. “3/11” is Japanese shorthand for the Fukushima Daiichi nuclear accident, which began on 11 March 2011—a catastrophe analogous in Japanese consciousness to the 9/11 terrorist attacks in the United States. [↑](#footnote-ref-1)
2. Continuous improvement—a distinctive skill of Japanese industry. [↑](#footnote-ref-2)
3. A big jump, a leapfrog. [↑](#footnote-ref-3)
4. This famous 17-syllable poem can be roughly translated:

   *The old pond*

   *frog jumps in*

   *plop* [↑](#footnote-ref-4)
5. Literally “the sound of the water,” *i.e.*, the plop. [↑](#footnote-ref-5)