Readers express displeasure that nuclear power was not covered in a recent special "Energy" issue. They also comment on the cover image for that issue: "Becalmed windmills are the perfect symbol for our politically correct energy program....[but] Don Quixote should have been shown attacking them." The debate over genetically altered foods continues, and an editorial writer's alleged ties to industry are questioned and disclosed. And academics are warned that private postdoctoral fellowship agencies are sending critiques of applications to applicants.

Energy Options

In the 30 July "Energy" issue, Richard Stone and Phil Szuromi ("Powering the next century," p. 677) do not take a global perspective when they write that others have "missed the mark by heralding new eras of nuclear and alternative energy." They do not discuss the fact that the use of nuclear power has enormously increased on an international level.

In the 10 years from 1987 to 1997, nuclear power use grew by 70% in Japan and 50% in France (*1*). Nuclear power plants now generate a majority of France's electrical power. Since 1983, the use of nuclear power in Organization for European Cooperation and Development (OECD) countries has more than doubled. There have also been steady growths of wind and solar power.

Although nuclear power may not be a big political success in the United States, it has and continues to be a major, in some cases the largest, factor in electrical energy production in some other countries. Since nuclear power does not produce carbon dioxide in its primary energy-producing process, it should be part of any reasonable energy policy discussion.

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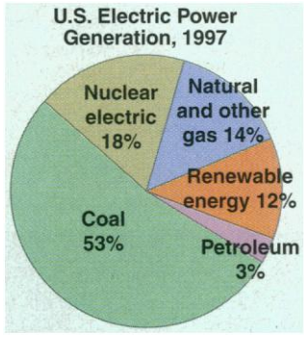

SOURCE: U.S. ENERGY INFORMATION ADMINISTRATION

References
1. *Economist* **352**, 88 (31 July–6 August 1999).

In the special "Energy" issue, solar energy is strongly supported. In general, however, solar energy analyses do not take into account the full cost of storage backup for a system that substantially depends on solar energy.

Consider the consequences of depending on solar energy after a major volcanic eruption, such as that of Krakatoa. Krakatoa's eruptions began in May 1883 and continued until 27 August 1883, when a cataclysmic explosion blew the island apart with the force of a 100-megaton bomb (the Hiroshima bomb was about 20 kilotons). Ash from the explosion rose 50 miles into the stratosphere, where it affected weather patterns for the next year. In the following "year without a summer," there were extensive crop failures and related deaths and devastation. Since the 1970s, solar energy analysis has consistently not recognized the "potential," much less the actual experience, of such interruptions in solar radiation.

The next Krakatoa, or worse, could occur in your grandchildren's solar energy–dependent world, with a likely population of 10 billion people and a dozen megacities with more than 20 million people. Economies could collapse, and food and water could be lost. This might be "the maximum credible accident" for solar energy.

Those who promulgate reliance on solar energy, beyond an appropriate and potentially significant role with backup capabilities, to displace fossil fuels are putting the world at such a risk.

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The "Energy" issue cover shows a group of "Blue Max" turbines, probably in about 1986. This is an unfortunate choice, unless it was intended to show how far wind turbine design has advanced in 15 years; if so, it should have said so. These machines had aluminum blades that quickly fatigued, cracked, and broke, and an inadequate braking system that allowed the turbine to "run away" and destroy itself. Fortunately, the fine feature articles in the "Energy" issue exonerate this unfortunate beginning.

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The "Energy" issue cover was almost perfect. Becalmed windmills are the perfect symbol for our politically correct energy program. But for those who might not get the joke, Don Quixote should have been shown attacking them.

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Redesigning Evolution?

Roger N. Beachy (Editorial, 16 July, p. 335) bewails the "hysteria" and "mistrust" that have led many Europeans to disbelieve U.S. official findings that genetically altered foods are safe for both eaters and ecosystems. A simpler explanation would be the widespread and justifiable perception that key committees, agencies, and policy positions have been captured or compromised by commercial interests.

Ex-regulators reviewing their own past decisions, and consultants to or former employees of the industries being scrutinized, do not look independent. Neither do studies performed or sponsored by those industries, especially if unpublished. Old, narrow, superseded science and lack of relevant disciplinary backgrounds may make findings unconvincing. Revolving-door appointments tarnish the appearance of integrity in policy advice. Such conditions, widespread in U.S. and for that matter U.N. food regulation, rationally explain weak public confidence. Beachy regrettably contributes to this problem by failing to note that a leading transgenics company is a cofounder and major funder of his institution, whose genuine independence, despite its university and nonprofit partners, remains to be established.

The "comprehensive scientific reviews" that Beachy says ensure food safety look very different to readers of a recent report (*1*) that the U.S. Department of Agriculture (USDA), the U.S. Environmental Protection Agency (EPA), and the U.S. Food and Drug Administration (FDA) all lack jurisdiction to test and certify the safety of genetically modified foods. The FDA, for example, does not test the safety of genetically altered potatoes because the EPA regulates the *Bacillus thuringiensis* (*Bt*) insecticide they produce. (Companies can opt out of FDA regulation