

The Price Is Not Right

Until the risks associated with producing energy are reflected in its price, the market will be distorted.

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Risky business: Rescue workers confront rubble and radiation.

Japan's nuclear catastrophe, unfolding less than a year after the devastating BP oil spill in the Gulf of Mexico, underscores the powerful message that every source of energy carries some risk.

No legislation, no regulation, no contingency plan can completely extinguish that danger. Accidents will happen (as in the mine cave-ins that regularly punctuate the world's production of coal); natural disasters will overwhelm our preparations (as in Japan); and the production and consumption of energy will strain the environment (as through the accumulating danger of global climate change). Power without risk is an unrealistic goal.

But it's not unrealistic to demand better ways to understand and compare the relative dangers posed by the competing energy sources—oil, natural gas, coal, nuclear, and renewable options such as solar and wind. That's almost impossible to do now because so few of the risks associated with these sources are incorporated into their price. The operation of energy markets today actually impedes our ability to rationally assess and prepare for energy-related dangers,

because the prices we pay provide such a distorted picture of the true costs, and full risks, of the power we consume.

“There is no doubt that the pricing in the energy system in the United States today does not reflect the full cost we as a society bear for the way we produce and consume energy,” says Joseph Aldy, until recently the chief environmental economist for President Obama at the National Economic Council. “Across the board, we are not fully accounting for the risks.”

Aldy and other experts see two principal ways in which prices now fail to “internalize” (as economists say) energy risks. One is the peril of a sudden catastrophic accident, such as a nuclear-radiation release or oil spill. In the U.S., those dangers are not fully reflected in the price of nuclear power or oil because federal law limits producers’ liability in case of calamity.

Under federal law, offshore oil drillers are liable only for \$75 million in damages after a spill. One measure of that limit’s absurd inadequacy: Under intense political pressure, BP last year set aside *\$20 billion* to cover damages from the Gulf’s Deepwater Horizon spill. But so far, Republicans and oil-state Democrats have blocked efforts to raise (or eliminate) the liability cap.

Federal law also artificially limits liability for nuclear power-plant operators, although in a more rational manner. Under the 1957 Price-Anderson Act, each nuclear operator is responsible for the first \$375 million in damages from an accident at one of its plants; after that, the rest of the industry must contribute to cover the next \$12.6 billion in claims. But if a worst-case accident causes even greater damage—a possibility that hardly looks unthinkable after Japan—taxpayers must cover all remaining costs.

The second big distortion in energy prices is their failure to fully incorporate environmental dangers. Those prices increasingly reflect the cost of conventional air pollutants because Environmental Protection Agency regulations have compelled polluters (such as factories and power plants) to spend money to reduce those emissions. But the U.S. has not yet limited the carbon-dioxide emissions linked to global climate change (Congress, in fact, may block the pending EPA proposal to do so). So “no one in American industry bears a price for emitting a ton of carbon,” notes Aldy, now an assistant public-policy professor at Harvard University’s John F. Kennedy School of Government.

That amounts to a subsidy for fossil fuels, particularly coal, which emits the most carbon; one recent National Academy of Sciences study calculated that the “hidden” cost of coal-fired electricity (measured in both conventional pollutants and carbon) approaches the price that consumers now pay. The federal liability limits likewise subsidize oil drillers and nuclear-plant operators: If they needed to cover more (much less all) of their risk, they would pay more for insurance and capital investment, and the price of the power they produce would rise.

These distortions carry two big costs. One is that they warp the competition between competing fuels. Solar and wind are lagging, despite their own government subsidies, because they cost more than conventional fuels, but that gap would narrow somewhat if coal plants internalized the cost of their carbon emissions or nuclear plants bore more of their real accident risk. (On the ledger’s other side, limiting carbon would benefit nuclear, a carbon-free power source.) More

fully integrating these dangers into energy prices, notes Paul Bledsoe of the Bipartisan Policy Center's Energy Project, would also increase the incentive "to invest in long-term breakthrough technologies which minimize these risks."

As important, limiting producers' liability on drilling and nuclear power blunts the economic incentive for them to maximize safety, because those caps reduce the cost of an accident. In a parallel process, suppressing electricity's price by failing to limit carbon discourages power consumers from maximizing efficiency and conservation. For all of these reasons, Aldy argues, "doing things that get the price right is a really important next step in our energy policy." After Japan's nuclear ordeal, it's also an increasingly urgent one.

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