



How Much Will It Cost to Solve Climate Change?

Although major reports conclude that avoiding climate change is affordable, costs could skyrocket without smart, immediate action.

by Kevin Bullis May 15, 2014

Major reports are concluding that stabilizing greenhouse-gas emissions to avoid catastrophic climate change is possible and can be done at a relatively low cost. But the details of the reports make it clear that when you factor in real-world issues—such as delays in developing and implementing technology and policy—the cost of solving climate change gets much higher. Switching from fossil fuels to low-carbon sources of energy will cost \$44 trillion between now and 2050, according to a report released this week by the International Energy Agency. That sounds like a lot of money, but the report also concludes that the switch to low-carbon technologies such as solar power—together with anticipated improvements in efficiency—will bring huge savings from reduced fossil-fuel consumption. As a result, the world actually comes out slightly ahead: the costs of switching will be paid for in fuel savings between now and 2050.



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Construction costs: Under the right conditions, replacing fossil fuels with solar panels and other low-carbon technologies could be surprisingly affordable.

Last month a major report from the U.N.'s **Intergovernmental Panel on Climate Change** said that efforts to stabilize levels of greenhouse-gas emissions would require investments of about **\$13 trillion through 2030**. It also noted that reducing emissions would reduce the rate of economic growth (as a result of such factors as higher energy prices). But it would do so by, on average, less than a tenth of a percentage point per year between now and 2100.

These cost estimates, however, are based on idealized scenarios. They

give a sense of what getting away from fossil fuels will cost if we all act now and make smart decisions going forward, and if technologies work out the way we hope they will. One of the biggest factors is how long it takes to start reducing emissions. In 2012, the IEA estimate for the cost of switching to low-carbon energy was only \$36 trillion, \$8 trillion less than the current estimate. The increase is largely because in the intervening time, emission rates have increased and greenhouse-gas levels in the atmosphere have risen, making the problem harder to solve. The IPCC report showed that continuing to hold off on reducing emissions could increase costs by 40 percent if the delay leaves emissions 50 percent higher in 2030 than they are in ideal scenarios.

Aside from delays in action, many other factors will increase costs. Costs will go up if countries don't all work together. They'll also increase if technologies don't work as expected. The most glaring example has to do with technology for capturing and storing carbon dioxide. According to the IPCC, if this technology can't be deployed, the cost of stabilizing greenhouse-gas levels will more than double (see "**The Cost of Limiting Climate Change Could Double without Carbon Capture Technology**").

Robert Pindyck, a professor of economics and finance at MIT, says that attempts to make decisions about climate change based on a cost-benefit analysis are doomed to fail because both costs and benefits are uncertain. "All we can do is speculate," he says. "We don't really know the costs. We don't really know the benefits." He says, however, that the chance of a catastrophic outcome should be enough to motivate investment to avert climate change even in the face of uncertainty, just as people buy health insurance without knowing if it will pay off.

Although actual costs can't be predicted with precision, cost estimates like the ones from the IPCC and IEA do have an important role: they can tell policymakers what to focus on. Climate negotiators have known for some time that acting quickly is important, and the reports make

this even more clear by showing just how much delays can add to costs. The data also help suggest which technologies might need more attention. The IPCC found, for example, that not having CCS could raise costs far more than, say, limiting the amount of solar power we put on the grid, suggesting that efforts on CCS should be given a high priority.

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Energy

Scalia's Death Boosts Chances for Obama's Clean Power Plan

The president's plan for reducing carbon emissions has a easier path to implementation, but the future of the U.S. power industry is likely to remain in limbo for some time.

by Richard Martin February 16, 2016

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he death of Supreme Court justice Antonin Scalia on February 13 triggered a political earthquake whose aftershocks will be felt across most spheres of American life



—none more so than **the struggle to limit global climate change**.



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Days before his passing, Scalia joined a five-judge majority in temporarily **halting the implementation of the Clean Power Plan**, the Obama administration's program to accelerate the shift away from fossil-fuel-based power plants. The unprecedented ruling was considered a likely death knell for the plan, but with eight justices now remaining and an extended political fight brewing over Scalia's successor, most commentators agree that, **as Climate Central's John Upton wrote**, "in dying, Scalia may have done more to support global climate action than most people will do in their lifetimes."

Briefly, that's because there are four possible outcomes:

1. President Obama successfully nominates and wins Senate approval for Scalia's successor, tilting the ideological balance on the Court to five-to-four, liberals over conservatives, and all but guaranteeing that the Clean Power Plan will eventually be upheld.
2. No successor is named by the time the plan comes before the Supreme Court again; the federal district court in Washington, D.C., upholds the plan, again, as it did prior to the high court granting the current stay, meaning that a four-to-four deadlock would leave the lower court's ruling in place (it's possible, of course, that the appeals court would nullify the rule, but that's highly unlikely given the D.C. court's makeup and its previous rulings).
3. A new Democratic president chooses the next justice, leading to the same outcome as #1.
4. A new Republican president appoints the next justice, and the Clean Power Plan is scrapped.



Justice Antonin Scalia during a Congressional hearing in 2010.

Three of those outcomes favor the Clean Power Plan. And “even in the latter scenario,” **writes Jack Lienke, a senior attorney at the Institute for Policy Integrity**, *on Grist*, “the EPA would be no *worse* off than it was in the immediate aftermath of the stay.”

All of which means, **as Reuters reported**, that Scalia’s “sudden death may have opened a new path to the rule’s survival.”

There’s a large caveat, though: **the Supreme Court’s ruling last week** contained a provision that it remains in effect until “disposition of the applicants’ petition for a writ of certiorari, if such writ is sought.” In English: even if the lower court again upholds the rule, the stay will last until the Supreme Court decides whether to take up the appeal by the opponents. If the high court declines to review the case, the stay terminates. If it takes up the case, the stay remains until the Supreme Court issues a final ruling.

As **explained by David Masselli**, an attorney who has argued cases before both the D.C. district and the Supreme courts, that process is likely to take two years at least. The Clean Power Plan is not scheduled to take

effect until 2020, but many states and big utilities have already started adjusting their power generation portfolios to comply with it.

Even with Scalia's death, in other words, it's going to be a while before we get any clarity on the future of the energy sector in the U.S.

(Sources: [Climate Central](#), [Grist](#), [Reuters](#))

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