



While environmentalists celebrate 'Earth Hour,' they should thank fracking for lowering emissions

Chelsea Follett

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On Saturday during "Earth Hour," millions of people will abstain from using electricity to draw attention to the energy sector's ecological footprint and other environmental issues. There is heartening news for those who choose to keep their lights on—whether as part of the "Human Achievement Hour" counter-movement or just as part of their everyday routine.

The International Energy Agency has announced that global energy-related carbon dioxide emissions were flat for the third year in a row in 2016 even as the world economy grew, indicating a sustained decoupling of emissions and economic activity. This is arguably as momentous as the well-documented decoupling of agricultural land area from crop yields and the decoupling of forest area loss from growth in population.

Largely responsible for flatlining emissions is a widespread shift from coal to cleaner-burning natural gas, which has become much more cost-effective thanks to the innovation of fracking, a product of private-sector competition. Other factors that may deserve some credit for that trend include advances in energy efficiency, the connection of new nuclear reactors to the grid, and better renewable energy technology. (Although it should be noted that state-mandated, centrally-planned transitions from fossil fuels to green energy have resulted in numerous problems, as Germany is finding out).

Last year, global emissions stood still even while the world economy grew by 3.1 percent. Emissions fell in the United States and China, and remained stable in Europe. That compensated for emissions increases elsewhere in the world, as often-demonized cheap fossil fuels helped poor countries to develop and expanded electricity access to those in need.

The market-based fracking revolution enabled the U.S. to reduce its emissions more than any other country, and also lowered Americans' electricity bills. The average American household now devotes less than 4 percent of its annual spending to energy.

U.S. coal demand fell by 11 percent as natural gas became more cost-competitive and, for the first time in history, the country generated more electricity from natural gas than from coal. Global coal demand fell as well. Even as the move from coal to shale gas decreased U.S.

emissions by 3 percent, bringing U.S. emissions to their lowest level since 1992, the U.S. economy expanded by 1.6 percent.

Yet, it was not Environmental Protection Agency regulations or costly subsidies for unreliable wind and solar energy that brought down emissions, but rather a technological breakthrough delivered by the market.

Even the U.S. Energy Information Administration acknowledges the crucial role of fracking in reducing U.S. emissions, and the International Energy Administration agrees. Falling emissions are: "a sign that market dynamics and technological improvements matter. This is especially true in the United States, where abundant shale gas supplies have become a cheap power source," according to IEA Executive Director Faith Birol.

China, similarly, reduced its emissions by 1 percent last year while its economy grew by 6.7 percent. The country increased its nuclear capacity by a quarter, generating power from five new nuclear reactors. This was part of a broader global trend. In 2016, global nuclear net capacity reached its highest point since 1993. China also began shifting from coal to natural gas as the latter became cheaper, but natural gas still only supplies 6 percent of China's energy. In comparison, natural gas now supplies about a quarter of all energy worldwide. The emissions-reducing potential of a larger-scale Chinese switch from coal to natural gas is considerable.

It is evident that market forces, rather than government mandates, have driven the decoupling of emissions and economic growth. Only the future will reveal the full potential of human ingenuity to supply humanity's needs while reducing harmful environmental impacts. In the meantime, on Saturday during "Earth Hour," Americans and Chinese who choose to keep the lights on should know that the environmental impact of doing so is less than in years past.

Chelsea Follett (@chellivia) is managing editor of HumanProgress.org, a project of the Cato Institute.