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A cheap fix to global warming is finally gaining support

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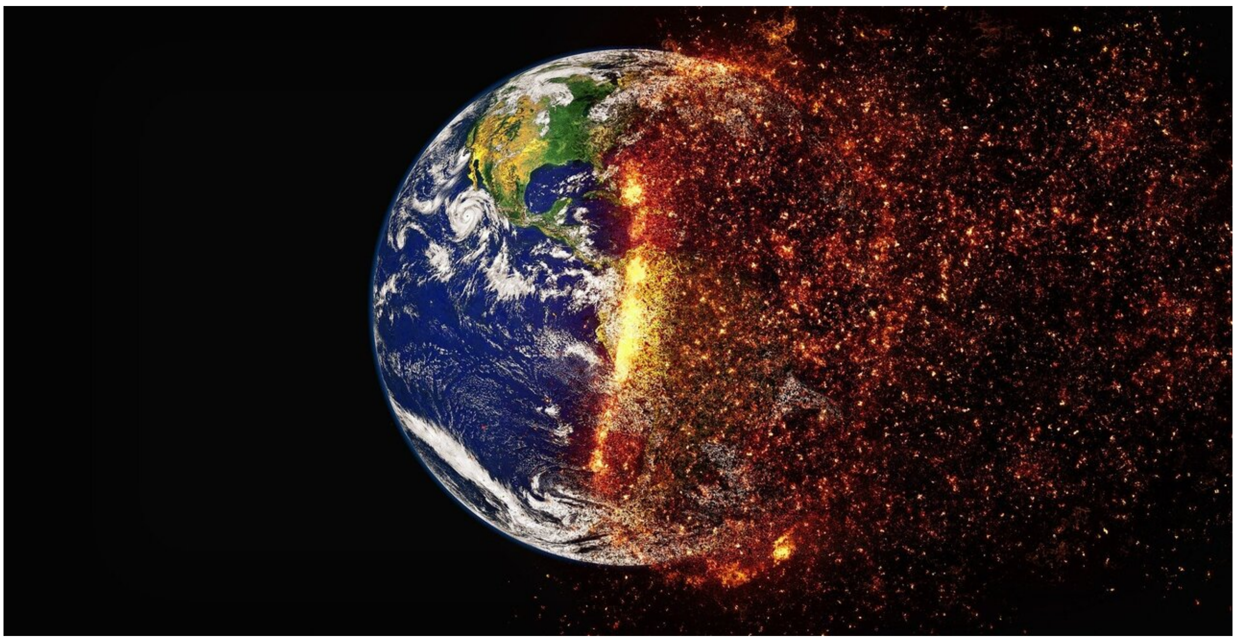

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Global support for one of the cheapest and most powerful climate actions is accelerating—and it couldn't come at a more urgent time.

Countries are starting to get more serious about slashing avoidable methane emissions from fossil fuel production, as the rapidly warming planet forces leaders to double down on solutions that can rein in scorching temperatures within decades.

Last month Bloomberg Green reported that U.S. officials are discussing with their Turkmenistan counterparts ways to help the central Asian nation cap some of the world's worst methane emissions that spew from its aging oil and gas operations. Separately, European Union rules could pave the way for cuts to the greenhouse gas seeping out from the continent's coal mines

If all the gas that's leaked or vented by Turkmenistan's energy sector was salvaged and burned instead and the EU rules take effect, the combined measures would have roughly the same short-term climate effect as wiping out roughly 290 million tons of CO_2 each year, according to calculations by Bloomberg and energy think tank Ember. That's like canceling the emissions of Taiwan—the world's leading chip-maker and its 21st worst polluter. In the U.S., the Environmental Protection Agency also is expected to outline its plan in coming weeks for implementing a new fee on methane emissions mandated by the sweeping climate law enacted last year.

Although massive emissions reductions of the gas from the energy sector are still needed from many more countries globally, including from major emitters like China and Russia, the measures may mark a shift toward concrete climate action.

"The potential U.S.-Turkmenistan deal and the new EU legislation show demonstrable progress in reducing global methane pollution, demonstrating that the 2021 Global Methane Pledge is more than just a promise," said Alice C. Hill, a senior fellow at the Council on Foreign Relations.

Halting methane that is intentionally released or accidentally leaked from coal mines or natural gas and oil production is some of the lowest hanging fruit in the fight against climate change because minimizing those emissions is often as simple as upgrading infrastructure and making it more efficient.

Those refurbishments can generate more product operators can sell. The International Energy Agency estimates that around 40% of oil and gas emissions could be implemented at no net cost. There is also significant potential to curb methane releases from large, porous underground coal mines, according to the agency. Although burning methane, the primary component of natural gas, still produces carbon dioxide, the warming impact is significantly less than if the uncombusted gas escapes directly into the atmosphere.

In Europe, coal mines already control or capture much of the methane spewing from their mines, but often fail to combust or process it and ship it to markets, according to Ember methane analyst Sabina Assan, who estimates the new EU rules could slash the bloc's coal mine methane emissions nearly 40% by 2040. The regulations must still pass through final negotiations with the bloc's member states and could change.

"This is basically just asking mines to improve the systems they already have in place," said Assan. "It's really something that they should already be doing, and it won't necessarily cost much."

Although some climate activist groups expressed disappointment the EU rules aren't more ambitious, the rules focus on measuring and mitigating emissions from both active and abandoned mines, which is an important because so many shafts continue leaking methane long after they stop production, according to Assan.

Although sparsely populated and rarely in the international news, Turkmenistan is a crucial piece of the global climate puzzle because it sits atop the world's fourth-largest natural gas reserves and spews more methane per unit of oil and gas output than any other major oil- or gas-producing country. The majority of the world's 500 most intense global methane releases since 2019 that have been traced back to the oil and gas sector were in Turkmenistan, according to analysis of satellite data by Kayrros SAS.

President Serdar Berdymukhamedov approved a roadmap that includes measures to study how the country could potentially join the Global Methane Pledge, a U.S. and EU-led initiative committed to slashing global emissions of the gas 30% by the end of the decade. About 7% of Turkmenistan's gas is currently believed to be wasted through deliberate venting or flaring and accidental leaks.

The U.S. could potentially provide financial assistance possibly through the Export-Import Bank with oil service providers like Halliburton Co. and SLB, formerly named Schlumberger, working to track down leaks and replace equipment in Turkmenistan, people familiar with the discussions said.

"It is very encouraging that Turkmenistan is stepping up efforts to mitigate its methane emissions, and that international partners are ready to support Turkmenistan in this journey," said Manfredi Caltagirone, head of the International Methane Emissions Observatory (IMEO), an initiative of the United Nations Environment Program.

The U.S. government also is moving on several fronts to attack methane emissions from the oilfield. A marquee plan the Environmental Protection Agency is expected to finalize late this year would mandate routine monitoring for leaks at even small wells, require company blueprints for plugging them and curtail the use of flaring, when natural gas at oil wells is burned off as less-potent carbon dioxide.

U.S. regulators say oil and gas operators stand to claim over 80% of the revenue from the sale of natural gas that would be newly captured under the requirements. The expected methane emissions reductions from the

EPA's proposed mandates aren't linear and the agency didn't give an annual breakdown.

However, averaging the estimated cuts over the 12-year timeframe provided by the agency shows the rules would block roughly 2.7 million metric tons of methane from entering the atmosphere annually. Because methane is a potent greenhouse gas, the short term climate impact would be equivalent to eliminating 225 million metric tons of carbon dioxide every year or canceling Pakistan's emissions.

The U.S. and EU made methane a top issue ahead of COP26 in 2021, ultimately rallying some 150 nations behind the global pledge. Nearly two years after that pact was unveiled, focus has moved beyond enrolling more countries in the initiative to taking action on the ground.

The goal for 30% reduction in global methane emissions by 2030 isn't likely to be met, according to David Oxley, head of climate economics at research group Capital Economics. However, Oxley wrote in a recent note that efforts to tackle methane emissions "give us confidence" that releases will start to decline this decade.

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