NATURAL GAS

What does Exxon's new methane program mean for climate?

Benjamin Storrow, E&E News reporter

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Exxon Mobil Corp. is working to reduce methane leaks at gas wellheads and pipelines. Loren Korns/Flickr

When it comes to solving the climate conundrum, plugging leaks from oil and gas infrastructure is relatively low-hanging fruit. Paying for the workers and infrared cameras needed to detect leaks from pipelines and compressor stations is a far cheaper and simpler task than, say, sequestering carbon dioxide emissions from a power plant.

Exxon Mobil Corp.’s move to pinch leaky pipes, announced this week, could reduce a substantial amount of pollution. But questions remain about the oil and gas sector’s commitment to voluntarily preventing the potent gas from escaping at a time when federal methane rules are being targeted for reversal.

The payoff is potentially large. Methane is 105 times more potent than carbon dioxide as a greenhouse gas during its time in the atmosphere. Scientists say curbing methane levels could slow the rate of warming and buy more time to address the wider challenges of climate change.

Still, the topic remains politically divisive. The Trump administration has attempted to roll back a series of Obama-era methane regulations, only to see its efforts hampered by the courts and Congress. U.S. EPA is now considering a two-year delay for implementing rules limiting methane emissions on new oil and gas wells. The Bureau of Land Management has similarly delayed a rule governing venting and flaring from oil and gas wells on federal land.

It was against that backdrop that Exxon Mobil announced a plan Monday to voluntarily enhance its natural gas division's leak detection and repair (LDAR) program (Energywire, Sept. 26). The move was notable on several fronts. XTO Energy Inc., Exxon’s gas subsidiary, is America’s leading gas producer. The company said it plans to deploy the enhanced program at new and existing wells, going a step beyond what was required by EPA regulations put in place under Obama.

Exxon's announcement also comes amid mounting efforts on the part of American natural gas producers to curb their methane emissions. Ten leading gas companies formed the ONE Future Coalition in 2014 to identify best practices for curbing methane leaks from gas infrastructure. They will begin reporting emission levels to EPA next year.

But whether those efforts represent a shift in U.S. oil and gas producers’ attitudes toward climate change, and their efforts to address it, remains to be seen. Environmentalists expressed cautious optimism, saying Exxon’s plan includes the measures needed to make a significant reduction in its methane emissions. Now it is up to the company to follow through on its promise, they said.

"History is something that can only be judged in hindsight, but it certainly has the makings of something we look back on in a few years and say, 'That was pretty important,'” said Mark Brownstein, a vice president specializing in energy and climate at the Environmental Defense Fund.
Industry representatives, for their part, said the move illustrates oil and gas producers' commitment to reducing emissions. Taking proactive measures also insulates companies against the risk of future regulations, said Richard Hyde, executive director of the ONE Future Coalition. The group's members include Southwestern Energy Co., America's third-largest gas producer, Apache Corp. and Statoil ASA.

But the main motivator behind reducing methane leaks ultimately is money, not climate, Hyde said. Methane is the main component in natural gas, and reducing leaks creates a safer work environment, ensures product delivery and offers a higher return, he said.

"If you're a producer or any part of the value chain, that's kind of money going up in the air. So if you're reducing that, you're basically putting money back in your pocket," Hyde said. "I don't think they're [Exxon] doing it for climate change, and I don't think any of our members are necessarily doing it for climate change. You could say that's a side benefit if you want to make that argument. But that's not what our membership is doing it for."

Nevertheless, the side benefit shows signs of yielding a growing dividend, he said, noting that it helps position companies as part of the solution to the climate challenge.

"You're seeing the investor community putting a lot of pressure on public companies to show you're an environmentally sustainable company," Hyde said.

Global methane levels have risen in recent years, though the cause of the increase remains a topic of some debate. Researchers at Stanford University last year identified agriculture as the likely culprit. Others, like Cornell University professor Robert Howarth, argue that the recent spike in methane levels coincides with the boom in American oil and gas production. The matter is further complicated by varying estimates of the amount of methane emitted by the oil and gas industry.

There is more agreement on this: Curbing methane from the sector could make a significant difference in climate efforts.

"I think methane is the low-hanging fruit for climate change. CO2 is really tough," Howarth said. "We have to decarbonize the energy systems. Methane is easier to go after. It's not the whole thing. Unless we reduce CO2, we're in a lot of trouble long-term. But we can immediately slow the rate of global warming and give ourselves more time to deal with the consequences by going after methane."

He welcomed Exxon's announcement, saying, "I'm glad to see someone in the industry seeming to take the issue seriously."

The political ramifications of Exxon's move remain uncertain. Environmentalists said the oil giant's actions show that the regulations proposed under President Obama were not as onerous as their opponents made them sound.

"If XTO can do this, what prevents others from doing it?" EDF's Brownstein said.

But industry officials warned that what may be good for Exxon might not work for smaller companies that cannot afford the investment in LDAR. The Obama regulations could be the difference between shutting down marginal wells and keeping them in operation, said Neal Kirby, a spokesman for the Independent Petroleum Association of America, a trade group.

"Imposing federal regulations that require costly, handpicked camera monitoring technologies removes the flexibilities needed for independent producers and will suppress the development of other approaches that could be more cost-effective and efficient," Kirby wrote in an email.

Exxon may be moving forward with its methane reduction efforts, but the battle in Washington seems set to continue.

Twitter: @bstorrow | Email: bstorrow@eenews.net

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