

BP and Environmental Defense Fund Collaborate to Reduce Methane Emissions

13 March 2019

Joint effort focuses on developing technologies and management practices to accelerate reductions of methane emissions across the global oil and gas industry

(HOUSTON, Texas) BP and Environmental Defense Fund (EDF) announced today a three-year strategic commitment to advance technologies and practices to reduce methane emissions from the global oil and gas supply chain.

The agreement enables joint collaboration on projects that test technologies and emerging strategies to continue to improve methane management. Working with universities and third party experts, the initiative has the potential for broad applicability to help the entire oil and gas industry significantly reduce this potent greenhouse gas.

"BP is taking a leading role in addressing methane emissions, and this collaboration with EDF is another important step forward for us and for our industry," said Bernard Looney, BP's upstream chief executive. "We've made great progress driving down emissions across our own business, including meeting our industry-leading methane intensity target of 0.2 percent, but there is much more work to do and partnering with the committed and capable team at EDF will help us develop and share best practices."

"BP's commitment to push the next frontier of methane technology and practice is important to prove out solutions that oil and gas companies can use to accelerate emission reductions. The scale of the methane challenge is enormous, but so is the opportunity. Whether natural gas can play a constructive role in the energy transition depends on aggressive measures to reduce emissions that include methane," said Fred Krupp, EDF president. "BP took such a step today."

He added, "EDF and BP don't agree on everything, but we're finding common ground on methane.

BP has shown early ambition to lead on methane technology. We hope to see more as BP delivers on its own stringent methane goal and we work together to spread solutions industrywide."

EDF will not receive any funding from BP, consistent with EDF's strict policy prohibiting receipt of funds from energy companies and corporate collaborators. Rather, BP and EDF are working to identify third-party analytical and technological demonstration projects, and BP will assist with funding.

The collaboration will also facilitate industry dialogue about the best practices to monitor and reduce emissions. EDF will provide input on science, technology and policy. These areas of work build on BP's methane reduction target; EDF's extensive methane research, business analyses and other innovation projects; and both organizations' participation in the Methane Guiding Principles, a multistakeholder initiative aimed at broad engagement to continually reduce emissions globally.

Key initiatives for the new methane collaborative focus on three areas in 2019:

1) Advancing Technology Breakthroughs

BP grants up to \$500,000 to a multi-stakeholder research initiative led by Colorado State University (CSU) that will improve the pathways to regulatory acceptance for emerging methane detection and quantification technologies. Advances such as drone-based methane monitoring and stationary continuous monitoring offer the potential to speed detection time, enabling more emissions to be found and fixed with enhanced efficiency. But to be accepted by regulators, innovations must be rigorously demonstrated as environmentally effective compared to traditional approaches. Developing a robust analytical model in addition to protocols for rigorous, independent field-testing are key milestones for this year. BP's financial and technical support builds on EDF's policy and scientific contributions.

"CSU welcomes this support from BP and EDF for this critical research work, and this provides the necessary confidence and momentum for other stakeholders to contribute in a collaborative environment, in which the results and tools will benefit the wider industry," said Dan Zimmerle, senior research associate for Colorado State University's Energy Institute.

2) Leveraging Digital Technologies

The digital revolution sweeping the oil and gas industry offers new opportunity to integrate methane management into operational excellence, as identified in EDF's report, <u>Fueling the Digital Methane Future</u>, produced with Accenture Strategy. Technology solutions like machine learning, artificial intelligence and augmented reality can embed methane management into the digital transformation that companies like BP are implementing to adapt and compete in a changing landscape.

In 2019, EDF and BP will scope and announce a digitalization project for methane that will harness innovation that improves operations and reduces emissions. Results and key learnings will be publicized to maximize environmental and industry benefits.

3) Expanding Methane Management

BP and EDF will also jointly collaborate on projects aimed at increasing the understanding of joint ventures, identifying best practices and potential opportunities for reducing methane emissions in non-operated assets. A 2018 <u>EDF report</u> found that

companies like BP can extend the impact of their methane reduction targets by supporting emissions reductions in joint venture projects with other oil and gas operators.

In 2019, BP and EDF will convene a workshop to learn about practices for emission reductions at non-operated assets and to identify potential opportunities to expand the coverage of methane efforts and commitments.

Notes to editors

- BP is a signatory member of the Methane Guiding Principles, which were signed in November 2017 and are supported by EDF and other organizations. The Principles are aimed at continuously reducing methane emissions across the natural gas value chain.
- Methane has a shorter lifetime in the atmosphere than carbon dioxide, but it has a higher global warming potential - 84 times more potent than carbon dioxide during its first 20 years in the atmosphere.
- BP is targeting a methane intensity of 0.2 percent and holding it below 0.3 percent.

Further information

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Environmental Defense Fund (<u>edf.org</u>), a leading international nonprofit organization, creates transformational solutions to the most serious environmental problems. EDF links science, economics, law and innovative private-sector partnerships. Connect with us on <u>Twitter</u>, <u>Facebook</u> and our Energy Exchange blog.

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