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U.S. Environmental Protection Agency  
1200 Pennsylvania Avenue, NW  
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September 20, 2021

Via Federal eRulemaking Portal: <http://www.regulations.gov> (DOCKET ID No.: EPA-HQ-OAR-2021-0295)

Re: **bp America Inc. supplemental comments in advance of EPA's proposed rule regulating methane emissions from existing sources in the oil and gas industry under Clean Air Act Section 111(d)**

Dear Sir/Madam:

On behalf of bp America Inc. and its affiliates (collectively, "bp"), we are pleased to respond to your request for further information concerning the role that methane intensity standards may play in designing the Environmental Protection Agency's ("EPA") proposed rule to control methane emissions from existing sources in the oil and gas sector under section 111(d) of the Clean Air Act.

bp is reimagining energy for people and our planet. Our ambition is to become a net zero company by 2050 or sooner and to help the world get there, too. We are committed to playing our part by delivering solutions that reduce the risks of climate change and providing cleaner, more affordable, and reliable energy. We aim to be net zero across our operations by 2050 or sooner and to actively advocate for policies that advance net zero.

bp has a 150-year history in America and is committed to the United States for the long-term. bp has a larger economic footprint in the US than in any other country— we have invested more than \$130 billion here between 2005 and 2020. bp's business activities support more than 125,000 American jobs and contributed about \$60 billion to the national economy in 2020.

bp supports direct federal regulation of methane emissions from the oil and gas industry across the value chain. EPA regulation of existing sources of methane

emissions from the onshore oil and gas production, processing, distribution, transmission, and storage segments is the right thing to do for the environment and will support consistency in regulation across the US. Such regulation can take advantage of cost-effective solutions that are actively being developed and utilized, as we described in some detail during EPA’s public workshop on methane detection technology (August 23–24, 2021), in which a range of stakeholders provided perspectives on innovative technologies to detect methane emissions.

This comment letter provides preliminary thoughts on the importance of a section 111(d) rule for methane emissions from existing sources. More specifically, this letter suggests that EPA explore, and solicit input on, the various ways in which “methane intensity” standards could be used in designing the rule. bp looks forward to commenting and providing input on these issues as the rulemaking progresses. bp encourages EPA to design the rule so that it provides flexibility in compliance and drives innovation in technology.

### **A. The Case for Federal Methane Regulation**

Natural gas has a key role to play in helping the world get to net zero. The Energy Information Agency (“EIA”), for example, calculated that between 2005 and 2019, shifts in the fuel mix for electricity generation in the US has resulted in cumulative CO<sub>2</sub> emissions reductions totaling 5,475 MMmt—and EIA specifically found that the shift to natural gas is responsible for more than 60% of these reductions.<sup>1</sup> Natural gas is also an important complement to renewable energy sources. Controlling methane emissions through federal regulation is vital if natural gas is to play its fullest role in the transition to net zero.

There is also a strong business case for EPA regulation of methane. Industry stands to benefit from an overarching federal regulatory framework, which establishes consistent minimum standards and nationally-applicable guidelines. Effective control of methane emissions requires long-term planning and capital investment. Businesses are in a better position to make these long-term decisions when there is regulatory certainty. A federal framework helps ensure regulatory certainty, so long as it is well designed and durable.

For these reasons, an overarching regulatory framework for methane emissions at the national level is preferable to a mix of state-by-state approaches; however, state regulations still have critical importance in achieving methane emissions reduction goals. Of course, methane rules—whether federal or state—must be well-designed, cost-effective, and most importantly deliver their regulatory objectives. Moreover, as discussed further below, methane regulations should be flexible enough to account for rapidly improving leak-detection and other emissions reduction technologies to ensure that such technologies may be deployed as they become available.

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<sup>1</sup> EIA, *U.S. Energy-Related Carbon Dioxide Emissions, 2019* 13 (Sept. 2020), [https://www.eia.gov/environment/emissions/carbon/pdf/2019\\_co2analysis.pdf](https://www.eia.gov/environment/emissions/carbon/pdf/2019_co2analysis.pdf).

## B. Ongoing Efforts to Tackle Methane Emissions

bp's U.S onshore business, bpx energy ("bpx"), is a leader in understanding the challenge posed by methane emissions and is taking action to achieve significant reductions in our US operations. bpx deploys a host of methane detection technologies based on operational feasibility and applicability. These include handheld optical gas imaging, fixed wing aerial surveys and drones, as well as several technologies in trial phase including continuous on-site monitors and satellites.

bpx is also actively engaged in finding new ways to reduce methane emissions. For example, bpx recently commissioned an electrified, highly automated, centralized processing facility in the Permian Basin, our largest US onshore location. This facility, one of the largest infrastructures projects in our US onshore history, reduces methane emissions by replacing or eliminating the need for gas-driven equipment (including compressors and generators) and by reducing flaring through a sophisticated separation and compression system.<sup>2</sup> This promising model that can be replicated across bpx's operations. bpx plans to spend upwards of \$1 billion on similar infrastructure by 2025.

bp is also implementing a new measurement approach to address methane emissions. We aim to install methane measurement at all existing major oil and gas processing sites by 2023. The data collected will be published and used as a baseline to reduce bp's methane intensity by 50%.<sup>3</sup>

## C. Designing the 111(d) Rule to Promote Flexibility and Efficiency in Compliance and Drive Technology Innovation: The Role of "Methane Intensity" Standards

bp provides these preliminary thoughts on issues that EPA should consider in designing its proposed section 111(d) rule and encourages EPA to solicit public comment and stakeholder input on these issues.

1) **Best System of Emission Reduction (BSER)**: As a first step in the design of any section 111(d) rule, EPA will need to determine "the best system of emission reduction" that has been "adequately demonstrated" ("BSER"), taking into consideration certain statutorily-required criteria—including cost, any non-air quality health and environmental impacts, and energy requirements—as well as other considerations. 42 U.S.C. § 7411(a)(1). This is an important topic, involving many issues that will require careful consideration, public comment, and stakeholder input.

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<sup>2</sup> 'bp aims for zero routine flaring in US onshore operations by 2025,' bp, [https://www.bp.com/en\\_us/united-states/home/news/features-and-highlights/bp-aims-for-zero-routine-flaring-in-us-onshore-operations-by-2025.html](https://www.bp.com/en_us/united-states/home/news/features-and-highlights/bp-aims-for-zero-routine-flaring-in-us-onshore-operations-by-2025.html), (April 18, 2021).

<sup>3</sup> 'Methane measurement,' bp, <https://www.bp.com/en/global/corporate/sustainability/getting-to-net-zero/ghg-emissions/methane-measurement.html>, (September 20, 2021).

As an initial matter, it is important that, in determining whether a system of emission of reduction may be considered “adequately demonstrated,” EPA should take account of new and emerging technologies and methodologies that are already supporting the reduction of methane emissions in the oil and gas industry, including for monitoring, detection, measurement and repair of leaks and other fugitive emissions. For example, in EPA’s August workshop, presenters provided valuable information on a wide range of methane-sensing technologies that are not currently approved for use in EPA’s New Source Performance Standards for the oil and natural gas industry but are being successfully developed and demonstrated in the oil and gas sector. As the D.C. Circuit held, for purposes of assessing whether a system of emission reduction is “adequately demonstrated,” Section 111 “looks toward what may fairly be projected for the regulated future, rather than the state of the art at present.” *Portland Cement Ass’n v. Ruckelshaus*, 486 F.2d 375, 391 (D.C. Cir. 1973).<sup>4</sup> bp looks forward to continuing to provide input on these issues, as it did in EPA’s recent workshop.

2) **Emission Performance Rates:** Once EPA determines BSER, it will then need to calculate the “degree of emission limitation achievable through the application of” BSER. 42 U.S.C. § 7411(a)(1).

EPA should consider quantifying the “degree of emission limitation achievable” in the form of emission performance rates, and should consider utilizing “methane intensity” standards to do so. By “methane intensity,” we are generally referring to the volume of methane emissions from a source’s operated upstream oil and gas assets as a percentage of the total gas that goes to market from those operations. bp’s methodology for defining “methane intensity” is aligned with the Oil and Gas Climate Initiative (“OGCI”). OGCI describes methane intensity generally as a percentage figure, “which represent[s] the volume of methane emissions for the upstream [operated] gas and oil sector as a percentage of the volume of the total gas marketed for the same upstream sector.”<sup>5</sup>

bp acknowledges that other companies and organizations have defined “methane intensity” in different ways. In its section 111(d) proposal, EPA should solicit input on how methane intensity may best be defined for this purpose. Assuming that methane intensity is reasonably defined, this metric can be used to define the degree of emission limitation achievable through the BSER. Utilizing methane intensity standards for this purpose will, in turn, help

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<sup>4</sup> See also *American Lung Ass’n v. EPA*, 985 F.3d 914, 962 (D.C. Cir. Jan. 19, 2021) (“To be ‘adequately demonstrated[,]’ we have explained, the system must be shown to be reasonably ‘reliable,’ ‘efficient,’ and ‘expected to serve the interests of pollution control without becoming exorbitantly costly[.]’). EPA has further explained that, while a system must be “adequately demonstrated” to be considered part of BSER, this “does not mean that the system ‘must be in actual routine use somewhere.’” Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units, 80 Fed. Reg. 64,662, 64,720 (Oct. 23, 2015) (to be codified at 40 C.F.R. pt. 60) (internal citations omitted). EPA pointed to case law holding that “[t]he Administrator may make a projection based on existing technology, though that projection is subject to the restraints of reasonableness and cannot be based on “crystal ball” inquiry.’ Similarly, the EPA may ‘hold the industry to a standard of improved design and operational advances, so long as there is substantial evidence that such improvements are feasible.’” *Id.*

<sup>5</sup> OGCI, *Oil & Gas Climate Initiative Reporting Framework* 15 (Oct. 2020), <http://ogci.com/wp-content/uploads/2020/10/OGCI-Reporting-Framework-3.3-October-2020.pdf>.

ensure flexibility in how states and sources may demonstrate compliance with the rule, and drive methane emissions reductions by incentivizing the continued development of new and innovative technology.

EPA could consider identifying different methane emission performance rates—with different methane intensity standards—tailored to various segments and sub-segments of the oil and gas industry, as appropriate. Further, EPA could consider establishing *interim* methane intensity standards to apply to existing sources during the early years of the compliance period. EPA could then incrementally increase the stringency of the methane intensity standards until they meet *final* methane intensity standards at the completion of the compliance period. This incremental approach will allow for the continued development and deployment of new and emerging technologies over a reasonable time frame. In its proposed rule, EPA should take comment not only on the stringency of the interim and final methane intensity standards for each relevant segment or sub-segment, but also the length of the compliance period, as well as the appropriate glide path or paths for states and sources to track progress during that period.

Finally, once EPA determines the “degree of emission limitation achievable” through the BSER, EPA will need to define state-specific goals. EPA should, in direct consultation with the states, explore whether to set rate-based goals for each state, which could be expressed in terms of methane intensity. It should also consider whether to provide each state with an alternative mass-based target, expressed in terms of an aggregate volume of methane emissions. For purposes of promoting flexibility and efficiency, each state could then decide its own pathway for compliance—choosing between a rate-based and mass-based goal, each of which is designed to achieve the same national standards—depending on the size, nature, and specific characteristics of that state’s oil and gas sector.<sup>6</sup> EPA should solicit input on all of these issues, including how employing methane intensity standards in setting state-specific goals can help promote flexibility, efficiency, and technology innovation in achieving methane reduction.

3) **The Importance of Measurement:** Methane measurement technologies are central to the design and implementation of methane emissions regulations. In particular, the ability to reliably measure methane emissions will be key to quantifying, verifying, and enforcing any methane intensity standards that EPA (or states) may establish as part of a section 111(d) rule. Methane measurement technologies have advanced considerably, as demonstrated in EPA’s August workshop, to support such an approach. For example, the Oil and Gas Methane Partnership is actively working on a measurement and reporting protocol. Of course, as several workshop presenters noted, a reliable measurement regime may require a combination of solutions across spatial and temporal scales. EPA should solicit public comment and industry input on the availability and readiness of measurement technology for use in establishing methane intensity standards as part of the section 111(d) rule.

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<sup>6</sup> Under section 111(d), each state would be responsible for fashioning the policies necessary to reach its state-specific target and would submit these policies in a state implementation plan for EPA review and approval.

This letter offers preliminary comments and suggestions for the proposal to help ensure that these important issues are adequately vetted during the comment period. We may have additional comments, suggestions, and refinements of these ideas once EPA releases its draft. bp looks forward to working collaboratively with EPA on this vital rulemaking effort.

Should you have any questions, please contact me at Downey.Magallanes@bp.com and Isabel Mogstad at Isabel.Mogstad@bp.com.

Sincerely,

A handwritten signature in cursive script, appearing to read "D Magallanes", with a long horizontal line extending to the right.

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