Montana Environmental Information Center v. BLM and the Future of Methane Emissions Mitigation under NEPA

INTRODUCTION

The United States leads the world in natural gas production, and by the end of 2014, domestic oil production had reached its highest rate in thirty years. While this U.S. natural gas production occurred on both private and public property, this In Brief focuses specifically on public lands managed by the Bureau of Land Management (BLM). The BLM oversees more than one hundred thousand onshore oil and natural gas wells on federal land. In 2008, the Montana Environmental Information Center (MEIC) challenged a series of BLM oil and gas leases in Montana. MEIC alleged that the BLM violated the National Environmental Policy Act (NEPA) by failing to consider methane emission reduction strategies in its leases.

This series of leases has been embroiled in a years-long procedural battle to determine whether MEIC has standing to challenge the BLM's NEPA compliance regarding greenhouse gas (GHG) emissions.⁵ In the intervening years, methane capture and reduction programs have gained traction as cost-effective, recommended practices in oil and gas operations.⁶ In 2015, the Ninth Circuit remanded the case with instructions to reassess standing.⁷ Should the

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^{1.} Fact Sheet: Administration Takes Steps Forward on Climate Action Plan by Announcing Actions to Cut Methane Emissions, White House, OFFICE OF THE PRESS SEC'Y (Jan. 14, 2015), https://www.whitehouse.gov/the-press-office/2015/01/14/fact-sheet-administration-takes-steps-forward-climate-action-plan-anno-1 [hereinafter White House Fact Sheet].

^{2.} BUREAU OF LAND MGMT., FACT SHEET ON METHANE AND WASTE REDUCTION RULE 1 (2016), http://www.blm.gov/style/medialib/blm/wo/Communications_Directorate/public_affairs/news_release_attachments.Par.74451.File.dat/VF_Fact_Sheet.pdf [hereinafter BLM FACT SHEET].

^{3.} Complaint at 2, Mont. Envtl. Info. Ctr. v. Bureau of Land Mgmt. (MEIC I), 2013 U.S. Dist. LEXIS 86560 (D. Mont. June 14, 2013) (No. CV-11-15-GF-SEH).

¹ Id at 20

^{5.} Mont. Envil. Info. Ctr. v. Bureau of Land Mgmt. (MEIC II), 615 F. App'x 431, 432 (9th Cir. 2015).

^{6.} See U.S. Gov't Accountability Office, GAO/RCED-11-34, Federal Oil and Gas Leases: Opportunities Exist to Capture Vented and Flared Natural Gas, Which Would Increase Royalty Payments and Reduce Greenhouse Gases 7–8 (2010) [hereinafter GAO Report].

^{7.} MEIC II, 615 F. App'x at 433.

district court find standing, the court will have the opportunity to evaluate the merits of MEIC's claims.⁸ Given the large number of BLM administered wells, implementing methane mitigation alternatives in leases would likely have a profound impact on GHG emissions. The outcome of *MEIC v. BLM* may illustrate how the trend toward methane capture and reduction programs will influence future NEPA challenges to oil and gas leases.

I. BACKGROUND

A. Methane Emissions in Oil and Gas Production

Methane, the main component of marketable natural gas, is a potent GHG which contributes to global climate change, causing devastating impacts on human and environmental health.⁹ Methane is the second most prevalent GHG emitted by human activity in the United States, 30 percent of which is caused by oil and natural gas production.¹⁰ Oil and gas production is the largest contributor to Montana's annual GHG emissions in the fossil fuel production industry.¹¹ MEIC advocates for the use of new technology to capture and sell methane that is currently lost through venting, flaring, and leakage during the production process.¹²

In January 2015, President Obama announced a goal to cut methane emissions from oil and gas production by 40 to 45 percent of 2012 emissions levels by 2025 as part of his Climate Action Plan.¹³ In response, the Environmental Protection Agency (EPA) issued a final rule amending its emissions standards for the oil and natural gas sector to reduce methane emissions in new and modified drilling operations.¹⁴ EPA's new standards are estimated to reduce emissions by 510,000 short tons of methane and yield net climate benefits of \$170 million in 2025.¹⁵ EPA's new standards aim to

^{8.} *Id*.

^{9.} EPA, EPA'S ACTIONS TO REDUCE METHANE EMISSIONS FROM THE OIL AND NATURAL GAS INDUSTRY: FINAL RULES AND DRAFT INFORMATION COLLECTION REQUEST 2 (2016), https://www3.epa.gov/airquality/oilandgas/may2016/nsps-overview-fs.pdf [hereinafter EPA FACT SHEET].

^{10.} Id.

^{11.} ALISON BAILIE ET AL., MONT. DEP'T OF ENVTL. QUALITY, MONTANA GREENHOUSE GAS INVENTORY AND REFERENCE CASE PROJECTIONS 1990–2020, at 50 (2007), http://www.climatestrategies.us/library/download/946.

^{12.} Venting is the release of methane directly into the atmosphere. Flaring is the process of burning excess natural gas, which converts methane emissions to carbon dioxide. *Oil and Gas Pollution in Montana*, MONT. ENVIL. INFO. CTR., http://meic.org/issues/oil-and-gas-in-montana/oil-and-gas-pollution-in-montana (last visited Apr. 17, 2016).

^{13.} White House Fact Sheet, supra note 1.

^{14.} Oil and Natural Gas Sector: Emission Standards for New, Reconstructed, and Modified Sources, 80 Fed. Reg. 35,824, 35,824 (Aug. 2, 2016) (to be codified at 40 C.F.R. pt. 60). The previous 2012 emissions standards regulated volatile organic compounds, another GHG, during oil and gas operations, but did not regulate methane emissions. EPA FACT SHEET, *supra* note 9, at 2.

^{15.} EPA FACT SHEET, *supra* note 9, at 4.

achieve this goal by cutting down on both "fugitive emissions," the accidental emissions and leaks that occur throughout the extraction process, as well as capping total methane emissions, which may limit intentional methane venting during normal operations. He Existing methane mitigating technology such as plunger lift systems, vapor recovery units, and improved drilling equipment could allow producers to capture and sell as much as 40 percent of the methane currently lost during production. In January 2016, the BLM proposed its own rule to limit methane waste in oil and gas operations. He BLM proposal would require producers to limit natural gas flaring and cease venting, submit methane capture plans with all new drilling applications, and implement improved leak detection technology. Unlike EPA's emission standards, the BLM's proposed rule would apply to both new sources and existing oil and gas wells overseen by the BLM.

B. The BLM's Oil and Gas Leasing Process

The BLM utilizes a three step process to lease federal oil and gas resources.²¹ First, in the planning phase, the BLM identifies general geographic areas that are suitable for leasing by preparing a Resource Management Plan (RMP).²² Second, during the development phase, the BLM chooses specific parcels within the RMP to make available to producers through competitive lease sales, and reviews the environmental impact of the proposed leases.²³ If the BLM finds the leases will not significantly impact the environment, it proceeds with the sales.²⁴ Finally, in the permitting stage, the developer must apply for a permit to drill from the BLM.²⁵ MEIC challenged the BLM leases for failing to comply with NEPA during the development phase.²⁶

^{16.} Id. at 2.

^{17.} GAO REPORT, *supra* note 6, at 7–8, 19. The public comment period for the proposed rule closed on December 4, 2015. Extension of Comment Period, Oil and Natural Gas Sector: Emission Standards for New and Modified Sources, 80 Fed. Reg. 70,179, 70,179 (proposed Nov. 13, 2015) (to be codified at 40 C.F.R. pts. 49, 51, 52, 60, 70, 71).

^{18.} BLM FACT SHEET, *supra* note 2, at 1.

^{19.} *Id.* at 3–4.

^{20.} *See id.* at 3–4.

^{21.} *MEIC I*, No. CV-11-15-GF-SEH, 2013 U.S. Dist. LEXIS 86560, at *5–7 (D. Mont. June 14, 2013).

^{22.} Id. at *5-6.

^{23.} Id. at *5-7.

^{24.} *Id.* at *6–7.

^{25.} Id

^{26.} *Id.* at *10-11; Brief of Petitioner-Appellant at 3, 5, *MEIC II*, 615 F. App'x 431 (9th Cir. 2015) (No. 13-35688).

C. Case Background

In 2008, the BLM sold sixty-one oil and gas production leases in Montana.²⁷ MEIC challenged these sales, and the BLM agreed to suspend them until further Environmental Assessments (EA) were completed to determine whether the leases posed a significant potential impact to the environment and would require the preparation of more detailed Environmental Impact Statements (EIS).²⁸ Each BLM field office within the proposed lease area completed an EA, and based on those EAs the BLM determined that forty-five of the original leases because would have no significant impact on the environment, and lifted their suspensions in 2010.²⁹ Relying on the same EAs, the BLM also sold fifty-three new leases in December 2010, resulting in a total of one hundred new oil and gas leases on over fifty thousand acres in Montana.³⁰

MEIC commented on the EAs and requested that the BLM consider alternative stipulations to the lease agreements requiring cost-effective measures for capturing and selling methane waste.³¹ EPA also commented that the BLM should consider including stipulations in the lease agreements requiring additional GHG mitigation procedures.³² The mitigation alternatives proposed in MEIC's comments would have reduced annual GHG emissions by the equivalent of removing 134,211 cars from the road.³³ The federal government would also have earned an additional nine million dollars per year in natural gas royalties using these suggested methane capture and mitigation technologies.³⁴ Despite the comments, the BLM issued Findings of No Significant Impact allowing the lease sales to move forward without preparing EISs.³⁵ MEIC filed a complaint in the District Court for the District of Montana, alleging that the BLM violated MEIC members' procedural rights

^{27.} MEIC I, 2013 U.S. Dist. LEXIS 86560, at *7-8.

^{28.} *Id.*; see Environmental Assessment, 40 C.F.R. § 1508.9 (2015) (explaining the statutory role of EAs in the NEPA review process).

^{29.} *MEIC I*, 2013 U.S. Dist. LEXIS 86560, at *7–8; The BLM also prepared a Supplemental Impact Report which included a general list of climate-change impacts from the proposed leases, but did not address methane waste, alternative mitigation measures, or the cumulative environmental impacts of climate change and oil and gas development. Complaint at 30, *MEIC I*, 2013 U.S. Dist. LEXIS 86560 (D. Mont. June 14, 2013) (No. CV-11-15-GF-SEH).

^{30.} *MEIC I*, 2013 U.S. Dist. LEXIS 86560, at *7–9; Complaint at 2, *MEIC I*, 2013 U.S. Dist. LEXIS 86560 (No. CV-11-15-GF-SEH) (the fifty-three additional lease sales totaled 33,257 acres, but MEIC's original complaint and the opinion in *MEIC I* differ as to whether 25,329 is the total acreage before or after the BLM lifted the suspension on forty-five of the original leases).

^{31.} Brief of Petitioner-Appellant at 3-4, MEIC II, 615 F. App'x 431 (No. 13-35688).

^{32.} Id. at 4-5.

^{33.} Id. at 3-4.

^{34.} *Id.*, see GAO REPORT, supra note 6, at 1 (oil and gas producers are not required to pay federal royalties on methane lost to venting, flaring, and leaks).

^{35.} *Id.* at 5.

under NEPA by failing to consider additional stipulations to the lease agreements to reduce GHG emissions.³⁶

II. LEGAL BACKGROUND

A. NEPA and Standing

NEPA is a procedural statute that aims to simultaneously protect the environment and promote productive human use of land and natural resources.³⁷ NEPA achieves this goal by requiring the preparation of an EIS whenever an agency considers "major Federal actions significantly affecting the quality of the human environment."³⁸

Article III, section 2 of the U.S. Constitution restricts the power of the federal judiciary to matters that are "cases" or "controversies."³⁹ To establish Article III standing in federal court, a plaintiff must prove (1) injury in fact (a concrete and particularized injury that is actual or imminent); (2) causation (the injury is fairly traceable to the defendant's challenged conduct); and (3) redressability (a favorable decision will likely remedy the injury).⁴⁰ If a court finds that the plaintiff lacks standing, it disposes of the case without reaching the merits.⁴¹

B. District of Montana and Ninth Circuit Holdings

The merits of MEIC's challenges to the one hundred BLM leases in Montana have not been addressed in court because, in 2013, the District Court for the District of Montana granted the BLM's motion for summary judgment on the grounds that MEIC did not have standing to challenge the adequacy of the BLM's EAs.⁴² The district court held that MEIC did not meet the injury-infact requirement because the BLM's alleged NEPA violation—failing to consider methane mitigation alternatives during the leasing process—did not threaten plaintiffs' concrete interest in the land through *climate-change impacts*.⁴³ The district court also held that MEIC had not proven causation

^{36.} *MEIC I*, No. CV-11-15-GF-SEH, 2013 U.S. Dist. LEXIS 86560, at *9–11 (D. Mont. June 14, 2013). The complaint also alleged that the BLM failed to take a "hard look" at the cumulative impact of oil and gas production in light of climate change, and failed to prepare an EIS or provide convincing reasons as to why an EIS was not required. *Id.* at *11.

^{37. 42} U.S.C. § 4321 (2012).

^{38.} Id. at § 4332(C).

^{39.} U.S. CONST. art. III, § 2, cl. 1.

^{40.} MEIC II, 615 F. App'x 431, 432 (9th Cir. 2015); see also Lujan v. Defenders of Wildlife, 504 U.S. 555, 560 (1992).

^{41.} Lujan, 504 U.S. at 578.

^{42.} *MEIC I*, No. CV-11-15-GF-SEH, 2013 U.S. Dist. LEXIS 86560, at *21, 24 (D. Mont. June 14, 2013).

^{43.} Id. at *18-20.

because GHG emissions from the leases were too small and diffuse to be causally linked to climate-change impacts to the land.⁴⁴

On August 31, 2015, the Ninth Circuit reversed and remanded to the district court to reconsider standing in light of how *surface impacts* from the challenged leases might harm plaintiffs' interests in the land.⁴⁵ The Ninth Circuit instructed the lower court to determine precisely which challenged lease areas could be tied to plaintiffs' aesthetic and recreational interests.⁴⁶ Should the district court find standing based on these surface impact threats to the land, it could consider whether the BLM violated NEPA by failing to consider reasonable methane mitigation technology in its proposed leases.⁴⁷

IV. ANALYSIS

If the district court finds standing and considers the merits of MEIC's challenge, its decision on remand could signal whether future NEPA challenges to oil and gas leases at the development phase will be successful. The administrative actions by EPA, the BLM and the Council on Environmental Quality (CEQ) strongly support the argument that NEPA analysis should include methane mitigation. In light of the trend toward methane waste reduction reflected in the Obama administration's goal, EPA's new methane emission standards, and the BLM's proposed emissions standards, judicial review of methane mitigation plans is likely to increase in coming years.

The CEQ's 2014 draft guidance for addressing GHG emissions and climate change in the NEPA review process also illustrates the move toward including methane capture and other GHG mitigation techniques in EAs.⁴⁸ The CEQ's draft guidance states that agencies should consider mitigation measures to lower GHG emissions during their review of reasonable alternatives, and provides examples of available measures.⁴⁹ The listed examples include "capturing or beneficially using fugitive GHG emissions such as methane," and make it clear that alternatives may include mitigation measures not in the original proposal.⁵⁰

^{44.} Id. at *20-23.

^{45.} MEIC II, 615 F. App'x at 433.

^{46.} *MEIC II*, 615 F. App'x at 434–35. *See also WildEarth Guardians v. Jewell*, 738 F.3d 298, 305, 309–11 (D.C. Cir. 2013) (holding that plaintiffs alleging NEPA violations related to climate change and GHG impacts may prove standing through local surface impacts caused by the action).

^{47.} See Brief of Petitioner-Appellant at 4–7, MEIC II, 615 F. App'x 431, 432 (9th Cir. 2015) (No. 13-35688).

^{48.} See COUNCIL ON ENVTL. QUALITY, EXEC. OFFICE OF THE PRESIDENT, REVISED DRAFT GUIDANCE ON THE CONSIDERATION OF GREENHOUSE GAS EMISSIONS AND THE EFFECTS OF CLIMATE CHANGE IN NEPA REVIEWS 19–20 (2014), https://www.whitehouse.gov/sites/default/files/docs/nepa revised draft ghg guidance searchable.pdf [hereinafter CEQ DRAFT GUIDANCE].

^{49.} *Id.*

^{50.} *Id.* at 20; see MEIC I, No. CV-11-15-GF-SEH, 2013 U.S. Dist. LEXIS 86560, at *20–23 (D. Mont. June 14, 2013).

Therefore, MEIC's argument that the BLM should have reviewed methane reduction alternatives in its EAs is directly supported by the CEQ draft guidelines, although the guidelines are neither final nor binding, and post-date the BLM's 2010 decision.⁵¹ Still, the CEQ draft guidelines' support of methane mitigation alternatives, as well as EPA's new methane reduction rules and the BLM's proposed rules, suggest that future challenges like MEIC's may find stronger support in the courts.

Furthermore, the BLM should consider methane mitigation stipulations specifically during the development stage rather than the permitting phase. MEIC argued that the development phase is most appropriate because the BLM has less power to require mitigation stipulations during the drilling permit phase. Furthermore, MEIC argued that Ninth Circuit precedent requires full NEPA review at the development stage because a lease sale represents an "irretrievable commitment of resources." He BLM, however, justified its initial rejection of MEIC's proposed alternatives by asserting that GHG emissions can be better managed by stipulations imposed at the permit stage. A Courts must reject this argument because evaluating the necessity of methane mitigation for every new drilling permit would be inefficient and less likely to lead to uniform methane mitigation measures than clear stipulations at the development phase.

The development phase is the best stage in the leasing process to include GHG mitigation stipulations because terms and conditions included in the lease apply to all subsequent production on the leased parcel.⁵⁵ Leases issued during the development stage confer a right to extract resources subject to lease stipulations, restrictions, and other reasonable measures.⁵⁶ Drilling permits, on the other hand, apply only to individual wells, or to several wells within a geologically and environmentally similar area.⁵⁷ The permitting stage is the final step operators must take to drill for and extract the resources their leases

^{51.} See CEQ DRAFT GUIDANCE, supra note 48, at 20.

^{52.} See Complaint at 37, MEIC I, 2013 U.S. Dist. LEXIS 86560 (D. Mont. June 14, 2013) (No. CV-11-15-GF-SEH).

^{53.} Brief of Petitioner-Appellant at 2–3, *MEIC II*, 615 F. App'x 431, 432 (9th Cir. 2015) (No. 13-35688).

^{54.} MEIC I, 2013 U.S. Dist. LEXIS 86560, at *8-9.

^{55.} See BLM Oil and Gas Regulations, 43 C.F.R. § 3162.5-1(a) (2016).

^{56.} *Id.* at § 3101.1–2 ("A lessee shall have the right to use so much of the leased lands as is necessary to explore for, drill for, mine, extract, remove and dispose of all the leased resource in a leasehold....").

^{57.} Id. at § 3162.3-1(c), (e).

entitle them to,⁵⁸ but the environmental analysis of drilling permits focuses on site-specific expected hazards and the condition of local resources.⁵⁹

Because a single lease may encompass multiple permits,⁶⁰ the lease development stage is a broader and more practical point from which all drilling activity on a parcel can be held to the same GHG mitigation stipulations. Producers must comply with the terms of the lease for every drilling permit and well within the leased parcel, so robust methane mitigation requirements applied at the development stage will apply to all drilling activity while conditions at the permitting stage would have to be assessed and applied to each individual permit.⁶¹ The development phase thus offers an opportunity to stipulate GHG mitigation measures that will be applied uniformly across all operations under a lease. Such uniformity will provide more reliable environmental protection, increased capture of marketable methane, and more predictable standards for producers.

Mitigation stipulations imposed at the development stage also better reflect how the environmental and economic impacts of methane emissions are not dependent on local conditions at a drilling site. As the district court noted in MEIC I, "[t]he effects of GHG emissions are diffuse. . . . "62 Methane emissions are potent contributors to global climate change, yet the effect a unit of methane will have on climate change is not site-specific, nor does it vary between wells.63 Methane emissions are thus better regulated at the lease development stage when mitigation measures can apply equally to all oil and gas production operations. Furthermore, EAs analyzing the impacts of methane emissions at a single well are likely to find those emissions smaller and less significant than a lease-wide assessment, so the BLM may perceive less need for mitigation when evaluating on a permit-by-permit basis. The BLM's environmental analysis and mitigation planning must address the powerful cumulative effects of GHG emissions, and the lease development stage is the best and most efficient point to include methane mitigation stipulations in oil and gas leases.

^{58.} Questions and Answers about Oil and Gas Leasing, BUREAU OF LAND MGMT, http://www.blm.gov/wo/st/en/prog/energy/oil_and_gas/questions_and_answers.html (last updated July 10, 2012).

^{59.} Oil and Gas Best Management Practices, BUREAU OF LAND MGMT, http://www.blm.gov/wo/st/en/prog/energy/oil_and_gas/best_management_practices.html (last updated Jan. 8, 2016).

^{60.} Oil and Gas Statistics, BUREAU OF LAND MGMT, tbl. 8, http://www.blm.gov/wo/st/en/prog/energy/oil and gas/statistics.html (last updated Apr. 11, 2016).

^{61. 43} C.F.R. § 3162.1(a).

^{62.} No. CV-11-15-GF-SEH, 2013 U.S. Dist. LEXIS 86560, at *19 (D. Mont. June 14, 2013).

^{63.} See Complaint at 10, MEIC I, 2013 U.S. Dist. LEXIS 86560 (D. Mont. June 14, 2013) (No. CV-11-15-GF-SEH) ("GHG emissions to the atmosphere are cumulative. Every metric ton of CO2e emitted to the atmosphere from a small source is equally as damaging to the climate as a metric ton of CO2e from a large source.").

CONCLUSION

Methane capture's dual environmental and economic benefits are reminiscent of NEPA's goal to "encourage productive and enjoyable harmony between man and his environment." The trend towards recognizing the efficacy and importance of such measures is reflected in EPA's new emission standards, the BLM's proposed rule to reduce methane waste, and the CEQ's explicit recognition of methane mitigation in its proposed guidelines for addressing climate change under NEPA. Though these administrative developments will not apply to *MEIC v. BLM*, even if the district court finds standing on remand, the outcome of the case will be telling. If the District of Montana does not find standing, the procedural fight to bring future challenges will remain difficult. If the court does reach the merits, its resolution of this issue may show whether the leasing development phase is an effective point for future challenges. These future challenges to NEPA compliance would likely be more successful because they would have the added force from the recently issued and proposed methane standards and from CEQ's draft guidance.

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^{64. 42} U.S.C. § 4321 (2012).

^{65.} EPA FACT SHEET, *supra* note 9, at 1–2; BLM FACT SHEET, *supra* note 2, at 2; *see also* CEQ DRAFT GUIDANCE, *supra* note 48, at 19–20.

We welcome responses to this In Brief. If you are interested in submitting a response for our online companion journal, *Ecology Law Currents*, please contact cse.elq@law.berkeley.edu. Responses to articles may be viewed at our website, http://www.ecologylawquarterly.org.