



January 30, 2023

**To:** Bureau of Land Management, U.S. Department of the Interior

**Re:** Waste Prevention, Production Subject to Royalties, and Resource Conservation, 87 Fed. Reg. 73,588 (proposed Nov. 30, 2022)

The Institute for Policy Integrity at New York University School of Law<sup>1</sup> respectfully submits this comment letter on the Bureau of Land Management's (BLM) above-captioned proposal (Proposed Rule).<sup>2</sup> Policy Integrity is a non-partisan think tank dedicated to improving the quality of government decision-making through advocacy and scholarship in the fields of administrative law, economics, and public policy.

The Proposed Rule would reduce the waste of natural gas through venting, flaring, and leakage on federal lands through technological requirements and regulating royalties imposed on flaring.<sup>3</sup> This is the third BLM waste-prevention regulation in the past seven years: While BLM issued a rule to reduce waste prevention in 2016 (2016 Rule),<sup>4</sup> it rescinded that rule two years later (2018 Rule).<sup>5</sup> Ultimately, both rules were struck down as arbitrary and capricious by different courts, for largely contradictory reasons.<sup>6</sup> In issuing the Proposed Rule, BLM thus must navigate inconsistent precedents on the proper scope of its authority.

In this complex landscape, BLM carefully justifies the Proposed Rule and rationally assesses its costs, benefits, and effects on royalties. While BLM performs a cost-benefit analysis, it excludes climate-change benefits in selecting its regulatory approach due to the District of Wyoming's concerns with the agency's reliance on climate benefits in the 2016 Rule.<sup>7</sup> BLM emphasizes the Proposed Rule's private benefits and increased royalties, explaining that such effects reflect "reasonable waste prevention measures . . . expected of a prudent operator."<sup>8</sup>

While BLM takes a reasonable approach, it could bolster its legal and economic support for the Proposed Rule in several key respects. In particular, this letter explains:

- **BLM should more expressly disavow its prior position that waste-prevention regulations must benefit regulated industry;**

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<sup>1</sup> This document does not purport to represent the views, if any, of New York University School of Law.

<sup>2</sup> 87 Fed. Reg. 73,588 (proposed Nov. 30, 2022) [Proposed Rule].

<sup>3</sup> *Id.* at 73,588.

<sup>4</sup> Waste Prevention, Production Subject to Royalties, and Resource Conservation, 81 Fed. Reg. 83,008 (Nov. 18, 2016) [2016 Rule].

<sup>5</sup> Waste Prevention, Production Subject to Royalties, and Resource Conservation; Rescission or Revision of Certain Requirements, 83 Fed. Reg. 49,184 (Sept. 28, 2018) [2018 Rule].

<sup>6</sup> First the 2018 Rule was vacated for giving too little weight to the climate benefits of reducing waste prevention. *California v. Bernhardt*, 472 F. Supp. 3d 573 (N.D. Cal. 2020). Then the 2016 Rule was vacated for giving those benefits too much weight. *Wyoming v. U.S. Dept. of the Interior*, 493 F. Supp. 3d 1046 (D. Wyo. 2020).

<sup>7</sup> Proposed Rule, 87 Fed. Reg. at 73,597.

<sup>8</sup> *Id.*

- BLM should **more closely evaluate the Proposed Rule’s effects in several key respects**—including closer assessment of all benefits expected to occur after the year 2031—**to ensure that its analysis more fully captures both benefits and royalty revenues** resulting from the rule.
- While BLM justifiably grounds the Proposed Rule on the prudent operator standard, **it should not entirely disclaim reliance on its economic assessment of the Proposed Rule’s climate benefits**, as the District of Wyoming decision does not require BLM to turn a blind eye to climate impacts altogether; and
- Although BLM appropriately applies the social cost of greenhouse gases valuations developed by an interagency working group in its regulatory impact analysis, it should consider bolstering its justification for those valuations.

We expand upon these suggestions in turn below.

### **I. BLM Should More Expressly Disavow Its Prior Position that Waste-Prevention Regulations Must Benefit Regulated Industry**

When it issued the 2018 Rule, BLM claimed that it “is not appropriate for ‘waste prevention’ regulations to impose compliance costs greater than the value of the resources they are expected to conserve,” and rescinded the 2016 Rule because that rule’s projected compliance costs exceeded the expected value of the conserved resources (i.e. the private value, not accounting for climate and environmental benefits of reduced waste).<sup>9</sup> BLM largely disavows that claim in the Proposed Rule, as it recognizes that the Mineral Leasing Act (MLA) grants the agency broad authority to promote “the public . . . benefit,” recognizing that an operator’s “immediate economic interests” will sometimes diverge from “the public’s interest,” and explaining that “[i]t is in these circumstances . . . that BLM regulation is necessary and appropriate to ensure that operators take reasonable measures to prevent waste.”<sup>10</sup> Moreover, the Proposed Rule’s expected compliance costs exceed the projected value (again, only the private value, not accounting for external benefits) of its conserved resources.<sup>11</sup>

While BLM clearly indicates that it now considers its prior position erroneous, it should more expressly and forcefully disavow its prior position that waste-prevention rules must benefit regulated industry. A more express and forceful disavowal would provide a strong record justifying the break from the 2018 Rule and quell any potential (albeit unmeritorious) argument that the agency fails to provide a sufficient explanation for this reversal.

In doing so, BLM could identify the same factors that the Northern District of California relied upon in deeming the agency’s prior position arbitrary and capricious, including: the

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<sup>9</sup> 2018 Rule, 83 Fed. Reg. at 49,190.

<sup>10</sup> Proposed Rule, 87 Fed. Reg. at 73,592.

<sup>11</sup> *Id.* at 73,599 (“[T]his rule would cost operators \$122 million a year . . . while generating benefits to operators of approximately \$54.2 million a year.”).

agency’s previous interpretation of the relevant statutes,<sup>12</sup> the MLA’s legislative history,<sup>13</sup> internal inconsistencies between that interpretation and portions of the 2018 Rule,<sup>14</sup> inconsistencies between that interpretation and other BLM regulations,<sup>15</sup> and the MLA’s focus on promoting the “public welfare.”<sup>16</sup>

In addition to all of those rationales identified by the Northern District of California when it struck down the 2018 Rule, BLM can also note that the position it took in that rule violated basic principles of economics and regulation. In general, private businesses will consider their own costs and benefits and seek to maximize their own welfare—accordingly, regulation is typically not needed to help businesses maximize their own profit. In contrast, as the Office of Management and Budget’s Circular A-4 explains, regulation is most appropriate when a market failure such as an externality is present—that is, “when one party’s actions impose uncompensated benefits or costs on another party.”<sup>17</sup> The guidance further notes that “[e]nvironmental problems are a classic case of externality,”<sup>18</sup> as they impose harm on third parties and will not be considered in an unregulated private transaction. The Proposed Rule corrects a market failure by which oil and gas producers capture less methane than is socially optimal because they do not consider the externality cost.

Circular A-4’s discussion of externalities supports BLM’s existing discussion in the Proposed Rule regarding the agency’s authority to “regulat[e] the physical impacts of oil and gas development on public lands,”<sup>19</sup> and offers further support for disavowing the agency’s prior position that waste-prevention regulation must benefit regulated industry. As noted above, BLM should cite the reasons that the Northern District of California provided rejecting the 2018 Rule’s erroneous claim that waste-prevention regulations must benefit regulated industry.<sup>20</sup>

## **II. BLM Should More Closely Evaluate the Proposed Rule’s Impacts in Several Key Respects to Better Capture Resulting Benefits and Royalty Revenues**

Although BLM reasonably concludes that the total benefits of the Proposed Rule exceed the rule’s costs,<sup>21</sup> its analysis likely underestimates the Proposed Rule’s benefits and royalties for numerous reasons. As discussed below, BLM should expand upon its analysis in several ways to more fully account for the Proposed Rule’s benefits and royalties.

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<sup>12</sup> *Id.* at 596 (summarizing BLM’s position prior to 2018 Rule “that any consideration of waste management limited to the *economics* of individual well-operators would ignore express statutory mandates concerning BLM’s public welfare obligations”).

<sup>13</sup> *Bernhardt*, 472 F. Supp. 3d at 596–97 (explaining that “the legislative history here confirms that the MLA’s enactment was in pursuit of several competing objectives” including the “purpose of protecting federal resources in order to promote efficient extraction and development of federal lands”).

<sup>14</sup> *Id.* at 599.

<sup>15</sup> *Id.* at 599–600.

<sup>16</sup> *Id.* at 601 (citing 30 U.S.C. § 187).

<sup>17</sup> OFFICE OF MGMT. & BUDGET, CIRCULAR A-4, at 4 (2003).

<sup>18</sup> *Id.*

<sup>19</sup> See Proposed Rule, 87 Fed. Reg. at 73,593–94.

<sup>20</sup> *Bernhardt*, 472 F. Supp. 3d at 596–601.

<sup>21</sup> Proposed Rule, 87 Fed. Reg. at 73,610.

In very broad brushstrokes, the Proposed Rule can be broken down primarily into two main types of requirements. First, the regulation would impose various technological requirements on mineral lessees.<sup>22</sup> According to BLM’s regulatory impact analysis, these requirements will reduce oil and gas waste, generating both private benefits (from increased gas sales) and social benefits (in the form of reduced pollution) as well as a transfer in the form of increased royalties (from the increased gas sales).<sup>23</sup> Second, the Proposed Rule would require mineral lessees to pay royalties on flaring above a royalty-free flaring limit.<sup>24</sup> BLM’s regulatory impact analysis estimates the royalty increase resulting from this provision, but assumes that operators will not reduce natural-gas flaring as a result of this requirement and accordingly does not project any benefits or costs resulting from these provisions.<sup>25</sup>

As detailed below, BLM can expand upon its regulatory impact analysis in several key ways to more fully capture the rule’s net benefits and royalty revenues. In particular, we suggest that BLM: 1) extend the timeframe of its regulatory analysis to capture net benefits and royalties expected to occur after 2031; 2) revise its calculation of future flaring to account for the data’s upward trajectory, which would increase the agency’s royalty calculation; and 3) attempt to account for the additional net benefits that the proposed flaring limits would cause insofar as they increase waste prevention.

#### **A. BLM Should Expand the Analytical Timeframe of the Analysis**

BLM’s regulatory impact analysis is limited to impacts that occur in or before 2031. BLM states that this is based on “a reasonable estimate of the functional life of the equipment” of 10 years.<sup>26</sup> However, BLM acknowledges that this is likely an underestimate of functional life, as it states that “benefits will remain at similar levels [after 2031] as gas is collected year after year even after the 10 years of analysis.”<sup>27</sup> And because “most of the costs associated with this rule are upfront in the first year, and the benefits of the rule continue over the life of the equipment . . . [a]s we continue past the timeframe studied in this RIA, we can expect the net benefits to increase.”<sup>28</sup> BLM recognizes, in other words, that 10 years is a conservative estimate of the equipment’s functional life and so cutting off the analysis at 2031 reduces BLM’s calculation of net benefits—including both private benefits and social benefits.

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<sup>22</sup> *Id.* at 73,589.

<sup>23</sup> *See generally* Bureau of Land Mgmt., Regulatory Impact Analysis for Revisions to 43 CFR 3160 and Addition of 43 CFR 3179 at 35–54 (Nov. 2022) [Proposed RIA]. Increases in royalty revenue are an economic transfer rather than a cost or benefit, and thus have distributional consequences. Circular A-4 endorses the assessment of consideration of economic transfers and their distributional effects in regulatory decisionmaking. CIRCULAR A-4, *supra* note 17, at 14. Royalty revenues are particularly significant here given the MLA’s purposes. *See infra* note 56 (providing caselaw on MLA’s purpose of ensuring a just return to taxpayers).

<sup>24</sup> Proposed Rule, 87 Fed. Reg. at 73,589.

<sup>25</sup> Proposed RIA, *supra* note 23, at 30–34.

<sup>26</sup> *Id.* at 5.

<sup>27</sup> *Id.* at 28.

<sup>28</sup> Bureau of Land Mgmt., Regulatory Impact Analysis for Revisions to 43 CFR 3160 and Addition of 43 CFR 3179 at 1 (Nov. 2022) [Proposed RIA]; *see also id.* at 28 (“While the cost impacts of the rule will have less impact as time moves on, the benefits will remain at similar levels as gas is collected year after year even after the 10 years of analysis. Thus, the net benefits of the rule would likely increase if examined over a longer time period.”).

BLM should seek to extend the timeframe of its analysis. As Circular A-4 explains, “[t]he time frame for [an agency’s] analysis should cover a period long enough to encompass all the important benefits and costs likely to result from the rule.”<sup>29</sup> Circular A-4 also provides an example of a 30-year analysis<sup>30</sup>—far longer than BLM’s ten-year analysis here.

BLM should seek to extend its analysis to a cover the likelihood (according to the agency’s own recognition) that the technology will remain in operation beyond 10 years. BLM can perform additional analysis or sensitivity analysis around a range of assumptions regarding the functional life of the equipment. Even if BLM does not extend its analytical timeframe, it should include a discussion of benefits beyond 2031 in the regulatory preamble where it discusses other unquantified benefits.<sup>31</sup>

### **B. BLM Should Revise Its Calculation of Excess Flaring in the Future, Which Likely Underestimates Future Flaring**

As noted above, BLM projects substantially increased royalties resulting from the royalty on flared gas above a royalty-free flaring limit. To estimate this royalty, BLM assumes that flaring above the proposed royalty-free limits will remain constant at 95.168 Bcf per year between 2022 and 2031.<sup>32</sup> BLM computes the value by taking the average of the observed excess flaring between 2015 and 2019.<sup>33</sup> But extrapolating the five-year average beyond 2022 appears inconsistent with data trends and BLM’s own view of the oil and gas industry—both of which indicate that BLM underestimates future baseline flaring and, thus, the potential royalties from the Proposed Rule.

Namely, while BLM assumes that baseline flaring will remain constant in the future, flaring has steadily increased on federal lands by roughly 9% annually, on average, between 2010 and 2020.<sup>34</sup> Without reason to believe otherwise, it is plausible to assume that this upward trajectory will continue. In fact, BLM states that “2019 production levels provide a more accurate depiction of the current status of the industry” than other recent years.<sup>35</sup> Nonetheless, the five-year average is smaller than the excess flaring in 2019 by 31% because flaring was substantially lower from 2015–2018 (the other four years in the five-year average).<sup>36</sup>

These factors suggest that BLM underestimates projected baseline flaring—and, accordingly, royalty revenue resulting from the Proposed Rule. To fully reflect the potential royalty revenue resulting from the Proposed Rule, BLM should revise the level of baseline flaring upward and apply a positive average growth rate of baseline flaring. BLM should also

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<sup>29</sup> CIRCULAR A-4, *supra* note 17, at 15.

<sup>30</sup> *Id.* at 34.

<sup>31</sup> See Proposed Rule, 87 Fed. Reg. at 73,610 (discussing “[a]dditional unquantified benefits from reduced emissions of VOCs and hazardous air pollutants”).

<sup>32</sup> See Proposed RIA, *supra* note 28, at 34 tbl. 7.6b.

<sup>33</sup> *Id.* at 32.

<sup>34</sup> The compound annual growth rate of flaring between 2010 and 2020 is calculated by  $100 * \{(95\text{Bcf}/40\text{Bcf})^{(1/10\text{years})} - 1\} = 9.04\%$ . 40 Bcf and 95 Bcf are approximations derived from *id.* at 10 graph 4.2.

<sup>35</sup> Proposed RIA, *supra* note 28, at 10.

<sup>36</sup> See *id.* at 32 tbl.7.6a.

consider performing sensitivity analysis using a reasonable range of average growth rates of baseline flaring.

### **C. BLM Should Attempt to Account for the Additional Net Benefits of the Proposed Flaring Limits Due to Potential Gas Capture**

As noted above, BLM’s analysis assumes that operators will not reduce natural-gas flaring as a result of the royalty-free flaring limit—and, accordingly, does not project any benefits or costs resulting from those provisions. BLM does this because “the rule does not require gas capture” and because it claims that it cannot make the necessary assumptions about the royalty’s impact on gas capture “with any accuracy.”<sup>37</sup> BLM acknowledges, however, that “this rule could influence operator decision-making regarding capture of the gas,”<sup>38</sup> as individual operators would be incentivized to limit flaring insofar as the marginal private benefit (i.e. the economic benefit from the captured gas minus the cost of capture) exceeds the per-unit royalty payment.

BLM should consider conducting sensitivity analysis in attempt to estimate the impacts—including private and social benefits—from potential reduced flaring. For instance, suppose 1% of the flaring that BLM estimates<sup>39</sup> above the royalty-free limit is captured. In that case, annual gas production would increase by 0.95 Bcf.<sup>40</sup> This increase would be a significant effect—for instance, it would be more than triple the incremental gas production that BLM expects from the proposed leak detection and repair program.<sup>41</sup> But 1% is just an illustrative hypothetical; to more scientifically project increased gas capture, BLM should use available information on the marginal abatement cost curve for flaring reductions: For instance, Lade & Rudik (2020) estimate that a total of 5,416 Bcf of gas was captured at a total cost of \$1.11 billion and an average cost of \$0.21/Mcf for the well pads in North Dakota in 2014, and provide the marginal flaring abatement cost curve.<sup>42</sup> This type of abatement cost-curve information would enable BLM to estimate a plausible range of additional gas capture from the flaring royalty program.

Insofar as BLM is able to estimate additional gas capture from reductions in flaring, this would almost certainly increase the total net benefits of the rule—by increasing private benefits and social benefits in the form of reduced methane emissions and other air pollution. In particular, the royalty rate on excess flaring is equivalent to a carbon tax of approximately

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<sup>37</sup> *Id.* at 32.

<sup>38</sup> *Id.*

<sup>39</sup> As discussed in the previous subsection, BLM likely underestimates the baseline level of flaring above the royalty-free limit.

<sup>40</sup>  $95.168 \text{ Bcf} * 0.01 = 0.95 \text{ Bcf}$ .

<sup>41</sup> Proposed RIA, *supra* note 28, at 66 tbl.8.4a.

<sup>42</sup> Gabriel E. Lade & Ivan Rudik, *Costs of Inefficient Regulation: Evidence from the Bakken*, 102 J. ENV’T ECON. & MGMT. 102,226, at 15 fig.5 (2020).

\$8.25/tonCO<sub>2e</sub>,<sup>43</sup> which is much lower than the social cost of carbon.<sup>44</sup> This difference between the royalty payment and social cost per ton of carbon suggests that the marginal benefits of any abated flaring would greatly exceed the marginal cost.

### III. BLM Should Consider the Proposed Rule’s Climate Benefits as One Factor in Its Rulemaking

The Proposed Rule’s regulatory impact analysis quantifies the proposal’s climate benefits,<sup>45</sup> but as noted above, BLM disclaims any reliance on those benefits as the basis for its rulemaking.<sup>46</sup> This disclaimer appears to be in response to the decision of the U.S. District Court for the District of Wyoming vacating the 2016 Rule. However, the District of Wyoming’s decision does not compel BLM to disregard climate benefits altogether.

In its opinion, the District of Wyoming held that BLM waste-prevention rules must be primarily “for the prevention of waste” rather than “for the protection of air quality.”<sup>47</sup> The court’s concern was not that BLM considered climate benefits at all; instead, the court was concerned with the fact that climate benefits were “the fundamental driver of the calculus”<sup>48</sup> and that BLM “primarily justifi[ed]”<sup>49</sup> the regulation on those benefits. The court suggested that climate-change benefits can “be part of the calculus.”<sup>50</sup> Moreover, agencies routinely consider all regulatory impacts—including co-benefits and indirect costs—when deciding how to regulate.<sup>51</sup>

While citing the Proposed Rule’s climate-change benefits as additional support for the regulation could admittedly cause some legal risk in light of the District of Wyoming’s decision, disclaiming reliance on those benefits altogether could also produce risk. For one, because the monetized costs of the Proposed Rule exceed monetized benefits if climate-change benefits are

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<sup>43</sup> Using the carbon dioxide emissions coefficient for natural gas (0.05487 ton CO<sub>2</sub> per Mcf), average projected natural gas price between 2022 and 2031 (\$3.62/Mcf), and the royalty rate (12.5%), the royalty payment per ton of CO<sub>2</sub> is calculated by 3.62 (\$/Mcf) \* 0.125 / 0.05487 (tonCO<sub>2</sub>/Mcf) = 8.25 (\$/tonCO<sub>2</sub>). The carbon dioxide emissions coefficient for natural gas is retrieved from EIA ([https://www.eia.gov/environment/emissions/co2\\_vol\\_mass.php](https://www.eia.gov/environment/emissions/co2_vol_mass.php), taken from Natural Gas for “Homes and Businesses”), average projected natural gas price is the average of projected natural gas prices tabulated in Proposed RIA, *supra* note 28, at 29 tbl.7.5.

<sup>44</sup> Proposed RIA, *supra* note 28, at Appx. A, p. 86–87.

<sup>45</sup> Proposed Rule, 87 Fed. Reg. at 73,600 (“The reduced methane emissions associated with the proposed rule would provide a monetized benefit to society (in the form of avoided climate damages) of \$427 million a year[.]”).

<sup>46</sup> *See id.* (“To be clear, although the BLM is reporting its estimates of the social benefits of reduced methane emissions here and in the RIA, the purpose of that reporting is solely to provide the most complete and transparent accounting of the costs and benefits of the proposed rule for the public’s awareness and consideration.”); *id.* at 73,610 (“Climate benefits derived from foregone emissions were not a factor in the decision to propose any of the individual waste prevention requirements in this proposed rule.”).

<sup>47</sup> *Wyoming*, 493 F. Supp. 3d at 1064.

<sup>48</sup> *Id.* at 1081.

<sup>49</sup> *Id.* at 1079 (“The question then becomes whether an agency can primarily justify and rely on ancillary benefits when promulgating a regulation.”); *see also id.* (“BLM cannot rationally claim the Rule’s objective is waste prevention while justifying its considerable costs almost entirely on climate change benefits.”).

<sup>50</sup> *Id.* at 1081.

<sup>51</sup> *See* CIRCULAR A-4, *supra* note 17, at 26 (discussing agency consideration of “ancillary benefits and countervailing risks”).

excluded,<sup>52</sup> the Proposed Rule may face legal vulnerability if those benefits are excluded from consideration entirely.<sup>53</sup> Moreover, by disavowing reliance on climate benefits altogether, BLM could enable a future administration to roll back this regulation without rationally justifying its disregard for its climate benefits—much like the BLM unlawfully did in the 2018 Rule.<sup>54</sup>

BLM can consider this regulation’s climate benefits in a manner consistent with the District of Wyoming’s decision. According to BLM’s analysis of the Proposed Rule—which, as noted above, likely undervalues the rule’s private benefits—more than \$54 million of this proposal’s \$122 million in annualized compliance cost would be recouped by operators through methane conservation.<sup>55</sup> Additionally, the proposal will (again, conservatively) increase royalty revenues by \$39 million per year on an annualized basis—which, while technically an economic transfer, serves a key statutory purpose.<sup>56</sup> These figures suggest that BLM could consider climate-change benefits as a “part of the calculus” to further justify the Proposed Rule, without those benefits serving as “the fundamental driver of the calculus.”<sup>57</sup>

#### **IV. BLM Properly Applies the Social Cost of Greenhouse Gases Valuations Developed by An Interagency Working Group and Should Consider Bolstering Its Justification for Those Valuations**

Although BLM disclaims reliance on the Proposed Rule’s climate benefits,<sup>58</sup> it appropriately monetizes those benefits in its regulatory impact analysis using the social cost of greenhouse gases estimates developed by the Interagency Working Group on the Social Cost of Greenhouse Gases (Working Group).<sup>59</sup> As BLM explains,<sup>60</sup> those values—though widely agreed to underestimate the full social costs of greenhouse gas emissions<sup>61</sup>—are appropriate to use as

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<sup>52</sup> As discussed in Part II, *supra*, the Proposed Rule features at several categories of unquantified benefits and thus likely undercounts the Proposed Rule’s net benefits.

<sup>53</sup> See *Michigan v. EPA*, 135 S. Ct. 2699, 2707 (2015) (“No regulation is ‘appropriate’ if it does significantly more harm than good.”). As BLM recognizes in the Proposed Rule, however, “the statutory provisions authorizing the BLM to regulate oil and gas operations for the prevention of waste do not impose a net-benefit requirement.” Proposed Rule, 87 Fed. Reg. at 73,600.

<sup>54</sup> See *Bernhardt*, 472 F. Supp. 3d at 476–80.

<sup>55</sup> Proposed Rule, 87 Fed. Reg. at 73,589.

<sup>56</sup> See, e.g., *Wyoming*, 493 F. Supp. 3d at 1046 (recognizing statutory purpose to “ensure the proper payment of royalties to Federal, State, and Tribal governments”); *Arkla Exploration Co. Oil v. Texas & Gas Corp.*, 734 F.2d 347, 358 (8th Cir. 1984) (recognizing that a “broad purpose of the MLA was to . . . assur[e] through competitive bidding adequate compensation to the government for leasing in producing areas”). Increases in royalty revenue are an economic transfer rather than a cost or benefit, and thus have distributional consequences. Circular A-4 endorses the assessment of consideration of economic transfers and their distributional effects in regulatory decisionmaking. CIRCULAR A-4, *supra* note 17, at 14.

<sup>57</sup> See *Wyoming*, 493 F. Supp. 3d at 1081.

<sup>58</sup> See *supra* note 46.

<sup>59</sup> Proposed RIA, *supra* note 28, at 18.

<sup>60</sup> *Id.* at 18–24.

<sup>61</sup> Interagency Working Group on the Social Cost of Greenhouse Gases, Technical Support Document: Social Cost of Carbon, Methane, and Nitrous Oxide – Interim Estimates Under Executive Order 13,990 at 4 (2021) [hereinafter IWG, 2021 TSD]. Richard L. Revesz et al., *Global Warming: Improve Economic Models of Climate Change*, 508 NATURE 173 (2014) (note that co-author Kenneth Arrow was a Nobel Prize-winning economist).

conservative estimates and have been applied in dozens of previous rulemakings<sup>62</sup> and upheld in federal court.<sup>63</sup>

While BLM provides compelling justification for readopting the Working Group’s estimates that it applied in the 2016 Rule,<sup>64</sup> the enclosed comment letter provides numerous legal, economic, and policy justifications that further bolster BLM’s adoption of the Working Group’s climate-damage valuations. Specifically, we herein enclose and incorporate by reference a comment letter from Policy Integrity and nine other groups from January 2022 supporting EPA’s use of the Working Group’s climate-damage valuations in its proposed performance standards for the oil and gas sector.<sup>65</sup> The comments support the Working Group’s consideration of climate damages on a global basis,<sup>66</sup> its selection of discount rates,<sup>67</sup> and other key methodological choices.<sup>68</sup> This letter further argues that the climate-damage estimates that BLM adopted in the 2018 Rule—which served as a key basis for the Northern District of California’s decision striking down that regulation<sup>69</sup>—disregarded the best available science and severely undervalued the costs of climate change.<sup>70</sup>

BLM should consider incorporating these additional justifications supporting the Working Group’s approach. In particular, while the District of Wyoming questioned whether “it was reasonable to use a global emissions metric” to measure the climate benefits of BLM’s waste-prevention regulations,<sup>71</sup> the enclosed comment letter offers extensive legal justification supporting the consideration of climate damages on a global scale. As the letter explains, there are “diverse ways in which U.S. interests, businesses, and residents may be impacted by climate change beyond U.S. borders.”<sup>72</sup> For one, considering climate damages on a global scale prevents a tragedy of the commons: If all countries narrowly considered domestic climate damages, they would insufficiently curb their own pollution and thereby cause extensive climate harm within the United States.<sup>73</sup> For another, due to the interconnected nature of global markets, trade, and migration patterns, climate effects “occurring outside of U.S. borders will have a direct impact on . . . U.S. citizens and the investment returns on those assets owned by U.S. citizens and

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<sup>62</sup> Peter Howard & Jason A. Schwartz, *Think Global: International Reciprocity as Justification for a Global Social Cost of Carbon*, 42 COLUM. J. ENV’T L. 203, 270–84 (2017) (listing all uses through mid-2016).

<sup>63</sup> *Zero Zone v. Dept. of Energy*, 832 F.3d 654, 679 (7th Cir. 2016).

<sup>64</sup> Proposed RIA, *supra* note 28, at 18–24.

<sup>65</sup> Center for Climate and Energy Solutions et al., Comments on the Consideration of the Social Cost of Greenhouse Gases in Standards of Performance for New, Reconstructed, and Modified Sources and Emissions Guidelines for Existing Sources: Oil and Natural Gas Sector Climate Review (submitted Jan. 31, 2022) [Joint Comment Letter].

<sup>66</sup> *Id.* at 3–14.

<sup>67</sup> *Id.* at 16–23.

<sup>68</sup> *Id.* at 24–35.

<sup>69</sup> *Bernhardt*, 472 F. Supp. 3d at 476–80.

<sup>70</sup> Joint Comment Letter, *supra* note 65, at 2.

<sup>71</sup> *Wyoming*, 493 F. Supp. 3d at 1081.

<sup>72</sup> IWG, 2021 TSD, *supra* note 61, at 15.

<sup>73</sup> *Id.* at 16; *see also* Joint Comment Letter, *supra* note 65, at 6–9 (discussing how international reciprocity justifies focus on global valuations).

residents.”<sup>74</sup> Notably, the Northern District of California provided these same rationales in concluding that the 2018 Rule was arbitrary and capricious.<sup>75</sup>

Focusing on global climate benefits is also consistent with BLM’s consideration of the Proposed Rule’s compliance costs on a global scale. All industry compliance costs ultimately fall on the owners, employees, or customers of regulated and affected firms. Whether the Proposed Rule’s compliance costs are passed to consumers or investors, or some combination thereof, a significant portion of the Proposed Rule’s alleged compliance costs will ultimately accrue to foreign customers or investors. In general, about 29% of U.S. corporate debt and 14% of equities are foreign-owned, and adding foreign direct investment to portfolio stock ownership suggests that foreigners own about 40% of U.S. corporate equity.<sup>76</sup> These patterns hold true for the oil and gas industry.<sup>77</sup> Thus, a significant share of the Proposed Rule’s compliance costs are likely to fall on foreign entities, meaning that BLM’s calculations of cost already include global effects.

The Working Group has always acknowledged that its climate-damage valuations are underestimates, and this was confirmed in November when EPA revisited those estimates and published higher climate-damage valuations based on the latest evidence.<sup>78</sup> EPA’s draft valuations faithfully implement the roadmap laid out in 2017 by the National Academies of Sciences for updating the social cost of greenhouse gases<sup>79</sup> and applies recent advances in the science and economics on the costs of climate change. EPA’s methodology and valuations are consistent with those applied by a range of expert independent researchers, and while EPA’s draft valuations remain underestimates,<sup>80</sup> they more fully account for the costs of climate change by incorporating the latest available research on climate science, damages, and discount rates. And in fact, as the EPA Science Advisory Board recently highlighted, the EPA values themselves underestimate the cost of methane emissions because they do not include ozone health benefits attributable to methane emissions reductions.<sup>81</sup> BLM should consider applying EPA’s updated draft estimates in a sensitivity analysis.

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<sup>74</sup> IWG, 2021 TSD, *supra* note 61, at 15; *see also* Joint Comment Letter, *supra* note 65, at 9–12 (discussing climate spillover effects and extraterritorial interests).

<sup>75</sup> *Bernhardt*, 472 F. Supp. 3d at 476–80.

<sup>76</sup> Joint Comment Letter, *supra* note 65, at 13 & nn.78–79.

<sup>77</sup> *Id.* at 13 & n.80.

<sup>78</sup> EPA External Review Draft of Report on the Social Cost of Greenhouse Gases (Sept. 2022) (Docket No. EPA-HQ-OAR-2021-0317) [hereinafter Draft Report].

<sup>79</sup> Nat’l Acad. Sci., Engineering & Med., Valuing Climate Damages: Updating Estimation of the Social Cost of Carbon Dioxide (2017) [hereinafter “NAS 2017 Report”].

<sup>80</sup> *See id.* at 4 (“[B]ecause of data and modeling limitations . . . estimates of the SC-GHG are a partial accounting of climate change impacts and, as such, lead to underestimates of the marginal benefits of abatement.”); *id.* at 72.

<sup>81</sup> EPA Science Advisory Bd., Draft Science Advisory Board Regulatory Review of Science Supporting EPA Decisions for the Proposed Rule: Standards of Performance for New, Reconstructed, and Modified Sources and Emissions Guidelines for Existing Sources: Oil and Natural Gas Sector Climate Review (RIN: 2060-AV16) at 13–15 (Jan. 4, 2023).

Sincerely,

Hiroshi Matsushima, Economic Fellow  
Max Sarinsky, Senior Attorney

Enclosure: Center for Climate and Energy Solutions et al., Comments on the Consideration of the Social Cost of Greenhouse Gases in Standards of Performance for New, Reconstructed, and Modified Sources and Emissions Guidelines for Existing Sources: Oil and Natural Gas Sector Climate Review (submitted Jan. 31, 2022)