

## **Testimony of Max Sarinsky**

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Thank you for the opportunity to speak at this important hearing. I am a senior attorney at the Institute for Policy Integrity (“Policy Integrity”), a non-partisan think tank dedicated to improving the quality of government decisionmaking. Policy Integrity is housed at New York University School of Law, where I am also an adjunct professor.

Policy Integrity is a non-partisan think tank dedicated to improving the quality of government decisionmaking through advocacy and scholarship in the fields of administrative law, economics, and public policy. We have written extensively on the consideration of greenhouse gas emissions and other environmental impacts in oil, gas, and coal leasing.

As this committee and the Department of Interior assess the future of oil and gas leasing on federal waters and lands, they should be guided by the best available science and economics. Unfortunately, previous Interior analyses have typically undervalued the environmental impacts of the federal fossil-fuel programs. Interior has broad discretion to reconsider its oil and gas policies and practices, and in doing so, it should be guided by the best available data and science.

First, Interior has previously concluded that offshore oil and gas production reduces total greenhouse gas emissions. But this conclusion has been rejected by independent analyses and federal courts, and should not form the basis for leasing policy. In reality, the federal oil and gas program is responsible for millions upon millions of tons of greenhouse gas emissions each year.

Second, even when Interior has acknowledged that federal leasing contributes to climate change, it has characterized those contributions as insignificant. But framing large volumes of emissions as a small portion of total global or national emissions, as Interior has done, is not a reasonable basis for decisionmaking, and masks the program’s substantial climate harms. Available tools, such as the social cost of greenhouse gases, could be used to measure the climate costs of the federal program and account for climate change in program policies.

Third, Interior has typically ignored the considerable “option value” of delaying leasing. Fossil-fuel leasing today affects extraction for decades to come and causes irreversible climate damage. Yet developers already have vast reserves, such that there is little short-term need or economic benefit to further leasing at this time. Against this backdrop, there is considerable value in curtailing fossil-fuel leasing now and preserving the option to lease or not lease in the future, particularly as the continued growth of renewable energy could render unnecessary extensive future leasing.

Interior should be guided by this information moving forward, and restore rationality to the oil and gas leasing program. For one, if the government properly considered energy substitution, the social cost of greenhouse gases, and option value, fossil-fuel leasing would look less attractive and determinations that Interior currently justifies under its flawed methodologies would become unjustifiable. Second, if the government properly considered the climate harms of

the fossil-fuel program, it would eliminate subsidies to the oil and gas industry by adjusting fiscal terms.

In short, the federal fossil-fuel program greatly increases global greenhouse gas emissions, severely harming present and future generations of Americans. Federal land-use policy should no longer be based on contrary conclusions that courts have rejected. Instead, the federal government should reform oil and gas leasing to account for climate harms, and refocus land-use policy toward facilitating a necessary transition to a renewable economy.

## **I. The Department of Interior Has Broad Discretion to Reform the Oil and Gas Program to Account for Climate Damage**

Congress passed three primary statutes granting the Bureau of Land Management (“BLM”) and Bureau of Ocean Energy Management (“BOEM”) authority to manage onshore and offshore oil and gas leasing. There are two primary onshore leasing statutes: the Mineral Leasing Act of 1920 (“MLA”),<sup>1</sup> and the Federal Land Policy and Management Act of 1976 (“FLPMA”).<sup>2</sup> Offshore leasing is subject to the Outer Continental Shelf Lands Act (“OCSLA”).<sup>3</sup> These statutes all grant Interior broad authority to manage public waters and lands for the public interest, requiring rational balancing of competing uses.

OCSLA governs the development of fossil fuel resources in the Outer Continental Shelf.<sup>4</sup> The statute requires BOEM to balance the production of oil and gas with “protection of the human, marine, and coastal environments.”<sup>5</sup> BOEM is required to consider the environmental risks of oil and gas development in offshore areas.<sup>6</sup> In deciding whether to lease any portion of the Outer Continental Shelf, BOEM must ensure a “proper balance between the potential for environmental damage, the potential for the discovery of oil and gas, and the potential for adverse impact on the coastal zone.”<sup>7</sup> BOEM is not required to make any particular or amount of parcels available for fossil-fuel development.

The provisions in FLPMA are intended to work in tandem with those in the MLA. FLPMA provides BLM with an overarching framework for managing federal lands “on the basis of multiple use and sustained yield.”<sup>8</sup> These multiple uses include, but are not limited to, “recreation, range, timber, minerals, watershed, wildlife and fish, and natural scenic, scientific and historical values.”<sup>9</sup> Under FLPMA, BLM must manage public land uses “in the combination that will best meet the present and future needs of the American people,”<sup>10</sup> and is also not required to make any particular or amount of lands available for fossil-fuel development.

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<sup>1</sup> 30 U.S.C. § 181 et seq.

<sup>2</sup> 43 U.S.C. § 1701 et seq.

<sup>3</sup> *Id.* § 1331 et seq.

<sup>4</sup> *Id.*

<sup>5</sup> *Id.* § 1802.

<sup>6</sup> *Id.* § 1344(a)(2)(A), (H).

<sup>7</sup> *Id.* § 1344(a)(3).

<sup>8</sup> *Id.* § 1701(a)(7).

<sup>9</sup> *Id.* § 1702(c).

<sup>10</sup> *Id.*

In carrying out its statutory mandates, Interior must balance positive and adverse impacts of oil and gas development, including harms to climate change that arise from the program. For example, under FLPMA, BLM is required to “weigh long-term benefits to the public against short-term benefits” when formulating regional management plans.<sup>11</sup> Similarly, under OCSLA, BOEM must weigh the “economic, social, and environmental values of the . . . resources contained in the outer Continental Shelf.”<sup>12</sup>

As these provisions illustrate, Interior has broad authority to manage public lands for the public benefit, and the consideration of environmental values is critical to this consideration.

## **II. In Assessing the Oil and Gas Program, Regulators Should Be Guided by the Best Available Science and Reject Implausible or Discredited Theories**

While federal law requires Interior to base its policies on reasonable information and assumptions, previous Interior analyses have substantially undervalued the environmental impacts of fossil-fuel extraction on public lands, often relying on disproven methodologies or irrational assumptions. Such false narratives should no longer form the basis for federal policy.

In particular, in recent years Interior has operated under the following assumptions: 1) energy production on federal property, particularly offshore, can reduce total greenhouse gas emissions; 2) any greenhouse gas emissions that do result from federal leasing and planning determinations are likely insignificant; and 3) there is, at most, limited option value to curtailing leasing despite the vast reserve of existing leases. As detailed below, all three of these assumptions are irrational and discredited by independent analysis.

### **A. Fossil-Fuel Extraction on Federal Waters and Lands Increases Total Greenhouse Gas Emissions**

The notion that fossil-fuel extraction on federal lands does not affect—or even decreases—total greenhouse gas emissions has been widely rejected by both federal courts and independent analysis, and should not form the basis for leasing policy.

At times, the Department of Interior has claimed that fossil-fuel leasing would have no impact on downstream greenhouse gas emissions, on the theory that extraction occurring on federal lands perfectly substitutes for alternative oil and gas development that would otherwise occur. But courts on numerous occasions have rejected this “perfect substitution” assumption as irrational and counter to basic market dynamics, as an increase in supply is bound to result in an increase in production and consumption.<sup>13</sup> In 2017, the U.S. Court of Appeals for the Tenth Circuit rejected a BLM leasing decision that assumed perfect substitution, finding the assumption “contrary to basic supply and demand principles.”<sup>14</sup>

In its most recent five-year plan, BOEM did not exactly assume perfect substitution, but instead used a model (known as MarketSim) that concluded that extraction in federal waters would *decrease* total greenhouse gas emissions. In essence, MarketSim found that oil and gas

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<sup>11</sup> *Id.* § 1712(c)(7).

<sup>12</sup> *Id.* § 1344(a)(1).

<sup>13</sup> *See, e.g., Mid States Coal. for Progress v. Surface Transp. Bd.*, 345 F.3d 520, 549 (8th Cir. 2003) (“[T]he proposition that the demand for [energy] will be unaffected by an increase in availability . . . is illogical at best.”).

<sup>14</sup> *WildEarth Guardians v. BLM*, 870 F.3d 1222, 1236 (10th Cir. 2017).

extraction in federal waters only modestly increased total extraction while displacing production in areas that would have yielded greater emissions to transport the energy to its end destination.<sup>15</sup> But that model was based on irrational inputs and assumptions, and courts have since rejected BOEM’s conclusion that offshore extraction reduces greenhouse gas emissions.

As the U.S. Court of Appeals for the Ninth Circuit recently held, BOEM’s analysis improperly omitted impacts on foreign oil demand resulting from domestic oil production.<sup>16</sup> Specifically, the Court explained, MarketSim “fail[s] to include emissions estimates resulting from foreign oil consumption” and thereby irrationally “assumes that foreign oil consumption will remain static” when domestic production increases.<sup>17</sup> As the Court explained, this ignores the global nature of the energy market and violates “basic economics principles” about supply and demand.”<sup>18</sup> The Court pointed to “credible scientific evidence” demonstrating that “domestic consumption impacts foreign oil consumption, and increases in foreign oil consumption can be translated into estimates of greenhouse gas emissions,” including one study concluding that offshore development “cause[s] an increase in global oil consumption ten times greater than the increase in domestic consumption forecasted by BOEM.”<sup>19</sup> The U.S. District Court for the District of Alaska echoed these findings in a subsequent decision vacating a BLM development plan that relied on the same modeling.<sup>20</sup>

In fact, in its most recent analysis for Lease Sale 258, published in October 2021 following the Ninth Circuit and District of Alaska decisions, BOEM corrected for the modeling error identified by the courts and concluded that the proposed offshore leasing in the Cook Inlet would result in more than 30 million metric tons of additional climate pollution.<sup>21</sup>

But even the agency’s updated methodology underestimates the climate impacts of fossil-fuel leasing, as the MarketSim model still does not account for structural changes in the global economy that are likely to reduce long-term oil and gas demand and increase substitution to renewables. In fact, the model unreasonably assumes near constant demand for oil and gas for 70 years into the future,<sup>22</sup> which is incompatible with domestic and international efforts to mitigate

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<sup>15</sup> BOEM, *OCS Oil and Natural Gas: Potential Lifecycle Greenhouse Gas Emissions and Social Cost of Carbon* 26 (2016); see also Liberty Development and Production Plan Final Environmental Impact Statement 4-52 (2018) (“Here, lifecycle GHG emissions associated with the No Action Alternative are estimated to be higher than those associated with the Proposed Action, despite the model’s assumption that a slightly lower amount of energy would be consumed domestically overall.”)

<sup>16</sup> *Ctr. for Biological Diversity v. Bernhardt*, 982 F.3d 723, 736–40 (9th Cir. 2020).

<sup>17</sup> *Id.*

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

<sup>19</sup> *Id.* (citing Peter Erickson, *U.S. Again Overlooks Top CO2 Impact of Expanding Oil Supply, but That Might Change*, Stockholm Env’t Inst. (Apr. 30, 2016), <http://www.sei.org/perspectives/us-co2-impact-oil-supply>; Peter Erickson & Michael Lazarus, *Impact of the Keystone XL Pipeline on Global Oil Markets and Greenhouse Gas Emissions*, 4 NATURE CLIMATE CHANGE 778, 778–80 (2014); Jason Bordoff & Trevor Houser, Columbia SIPA Center on Global Energy Policy, *Navigating the U.S. Oil Export Debate* 57 (2015)).

<sup>20</sup> *Sovereign Inupiat for a Living Arctic v. BLM*, No. 3:20-CV-00290-SLG, 2021 WL 3667986, at \*10–14 (D. Alaska Aug. 18, 2021).

<sup>21</sup> BOEM, Revised Draft Environmental Impact Statement for Cook Inlet Lease Sale 258 at 47–51 (2021).

<sup>22</sup> BOEM, *Potential Lifecycle Greenhouse Gas Emissions*, *supra* note 15, at 20.

the impacts of climate change and would produce unsustainable amounts of warming.<sup>23</sup> As some scholars have noted, domestic and international policies are likely to increase renewable generation in future years, meaning that fossil-fuel production would substitute for cleaner energy use far more than implied by MarketSim’s business-as-usual assumptions.<sup>24</sup>

In short, fossil-fuel extraction on federal lands increases greenhouse gas emissions. Although past Interior analyses have minimized this effect or rejected it altogether, its analyses were based on incomplete or outdated assumptions. Interior’s prior analyses—and, more broadly, the notion that domestic production is good for the environment—should not form the basis for federal leasing policy any longer.

## **B. Emission Increases from Federal Fossil-Fuel Development Result in Extensive and Irreversible Climate Damage**

Even when Interior has acknowledged that the federal fossil-fuel program contributes to climate change, it has typically characterized those contributions as insignificant by noting that federal leasing represents a relatively small fraction of all national or global emissions. But the implication of such an argument is that nobody should take steps to mitigate the climate crisis, which as a federal court explained, would be a “prescription for climate disaster.”<sup>25</sup> In reality, the climate pollution produced by the federal fossil-fuel program exacerbates the climate crisis, harms present and future generations of Americans, and cannot be ignored.

The practice of comparing emissions from a particular planning or leasing determination to far larger totals such as global emissions misleadingly makes massive amounts of climate harm from federal actions appear trivial. As one federal court recently recognized, “[t]he global nature of climate change and greenhouse-gas emissions means that any single . . . project likely will make up a negligible percent of . . . nation-wide greenhouse gas emissions.”<sup>26</sup> Yet while agencies assessing percentage comparisons of greenhouse gas emissions should recognize this phenomenon and adjust their standards accordingly, they typically do not. In other words, agencies all too often fail to recognize, as one federal court explained, that even a seemingly “very small portion of a gargantuan source of . . . pollution” may “constitute[] a gargantuan source of . . . pollution on its own terms.”<sup>27</sup>

In one recent assessment, for instance, Interior’s Office of Surface Mining deemed a proposal’s carbon dioxide emissions “small” because they comprised 0.44% of the annual global total.<sup>28</sup> But 0.44% of annual global emissions is actually a massive volume for an individual agency action. If Interior had used the social cost of greenhouse gases, which provides a

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<sup>23</sup> *Id.* (recognizing that “[a]s countries, including the U.S., address climate change with individual policy targets, this assumption could no longer hold,” and that “as new energy sources become more economically feasible, they could displace existing sources and/or alter the composition of energy supply”).

<sup>24</sup> *See, e.g.,* Brian C. Prest & James H. Stock, *Climate Royalty Surcharges* 11 (Nat’l Bureau of Econ. Res. Working Paper No. 28564, 2021) (“[A]s renewable generation increases the electricity demand for gas could become more elastic.”).

<sup>25</sup> *California v. Bernhardt*, 472 F. Supp. 3d 573, 623 (N.D. Cal. 2020) (“[F]raming sources as less than 1% of global emissions is dishonest and a prescription for climate disaster.”).

<sup>26</sup> *WildEarth Guardians v. Bureau of Land Mgmt.*, 457 F. Supp. 3d 880, 894 (D. Mont. 2020).

<sup>27</sup> *Sw. Elec. Power Co. v. EPA*, 920 F.3d 999, 1032 (5th Cir. 2019) (internal quotation marks omitted).

<sup>28</sup> Bull Mountains Mine No. 1 Federal Mining Plan Modification Environmental Assessment D-2 (2018).

monetary estimate of the harm caused by an incremental unit of climate pollution, it would have concluded that this determination resulted in at least \$9 billion in annual climate harm.<sup>29</sup> As this illustration demonstrates, Interior should contextualize the impacts of federal fossil-fuel determinations using the social cost of greenhouse gases, rather than dismissing them through misleading percentage comparisons to larger denominators.

Indeed, in the few instances in which Interior has used the social cost of greenhouse gases, the tool has revealed the substantial climate harms of the oil and gas program. In its most recent offshore leasing assessment, for instance, BOEM projected that the resulting climate pollution (which it underestimated due to poor substitution assumptions discussed above) would produce over \$2 billion in climate damage.<sup>30</sup> Independent analysis also finds that, even using conservative estimates of the social cost of greenhouse gases, curtailing federal leasing could cause \$10 billion in climate benefit per year.<sup>31</sup>

In short, the federal government should not ignore the substantial climate impacts of the oil and gas program. Tools such as the social cost of greenhouse gases are available to assess the severity of those impacts, and should be widely applied in planning and leasing determinations.

### **C. Particularly Given the Vast Stock of Existing Leases, There Is Considerable Option Value in Restricting Additional Leasing at This Time**

Prior planning and leasing determinations have also been based on a lease-now approach, and have mostly ignored the possibility that the government could curtail leasing and wait until further information is available before determining whether additional leasing is appropriate. But this value of delay—known in economics as “option value”—is extremely high, particularly given the fact that fossil-fuel developers already have vast stocks of existing leases and thus any potential economic benefits from additional leasing will not materialize for years.

Fossil-fuel developers already have vast reserves of both producing and currently non-producing leases. In the Outer Continental Shelf alone, producers currently hold nearly 3 million acres of producing leases and another 8 million acres in non-producing leases.<sup>32</sup> Onshore, producers now hold over 26 million acres of federal land, half of which is not yet producing.<sup>33</sup> This high volume of non-producing leases is due in large part to the “long lag time between leasing a parcel and beginning production from that parcel,”<sup>34</sup> as the very presence of subsurface

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<sup>29</sup> Richard L. Revesz & Max Sarinsky, *The Social Cost of Greenhouse Gases: Legal Economic and Institutional Perspective*, 39 *Yale Journal of Regulation*, manuscript at 19 & n.134 (forthcoming 2022) (using low-end value of the social cost of greenhouse gases based on a 3% discount rate).

<sup>30</sup> BOEM, Revised Draft Environmental Impact Statement for Cook Inlet Lease Sale 258 at 51 tbls. 4-14 & 4-15 (2021) (using a 2.5% discount rate).

<sup>31</sup> Brian Prest, Supply-Side Reforms to Oil and Gas Production on Federal Lands 32 (RFF Working Paper Working Paper 20-16) (2020).

<sup>32</sup> BOEM, Combined Leasing Report as of Dec. 1, 2021, <https://www.boem.gov/sites/default/files/documents/regions/pacific-ocs-region/oil-gas/Lease%20stats%202012-1-21.pdf>.

<sup>33</sup> *Compare Oil and Gas Statistics*, BUREAU OF LAND MGMT. tbl. 2, <https://www.blm.gov/programs-energy-and-minerals-oil-and-gas-oil-and-gas-statistics>, with *id.* tbl. 6.

<sup>34</sup> Congressional Budget Office, Options for Increasing Federal Income From Crude Oil and Natural Gas on Federal Lands 3 (2016).

reserves on a company's balance sheet can "boost its attractiveness to shareholders and investors, and even increase its ability to borrow on favorable terms."<sup>35</sup>

Given the vast reserves held by fossil-fuel developers, the current need for additional leasing is low and value of delaying leasing determinations until further information is available—including information about the growth of renewable energy—is high. This informational value of delay is known as "option value," and it has long been considered by agencies, courts, and economists to be a relevant factor for leasing and mineral decisions.<sup>36</sup> As the U.S. Court of Appeals for the District of Columbia Circuit has explained, there is a "tangible present economic benefit to delaying the decision to drill for fossil fuels to preserve the opportunity to see what new technologies develop and what new information comes to light."<sup>37</sup> And this option value "can be quite substantial"<sup>38</sup>—as it is now when both renewable energy is becoming more widespread and developers are likely to wait years to develop new leases.

In short, leasing additional lands to fossil-fuel developers at the present moment offers limited benefit given the vast reserve of existing leases, and the value of delaying leasing is high given that leasing is likely to result in substantial climate costs down the road. Interior should directly account for this option value in its policies and practices.

### **III. Rational Analysis Counsels for Reforming the Oil and Gas Program**

As outlined in this testimony, the federal government has relied on irrational and discredited theories for too long in setting oil and gas policy. It is past time for the government to rely on the best available science and economics. Such evidence, if properly assessed, counsels for several key reforms to the oil and gas program.

First, if the government properly considered energy substitution, the social cost of greenhouse gases, and option value, fossil-fuel leasing would look less attractive and determinations that Interior currently justifies under its flawed methodologies would become unjustifiable. Second, if the government properly considered the climate harms of the fossil-fuel program, it would eliminate subsidies to the oil and gas industry by adjusting fiscal terms.

#### **A. Proper Analysis Counsels for Curtailing Fossil-Fuel Leasing that Is Socially Undesirable**

The substantial climate costs of federal production and the high option value of delay strongly indicate that Interior's leasing practices are unjustifiable and that the federal government should curtail fossil-fuel leasing.

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<sup>35</sup> CTR. FOR AM. PROGRESS, *Oil and Gas Companies Gain by Stockpiling America's Federal Land* 3 (2018); see also TAXPAYERS FOR COMMON SENSE, *Gaming the System: How Federal Land Management in Nevada Fails Taxpayers* 4 (2019) ("Certain companies and interests take advantage of the low acquisition and ownership costs for federal leases to amass sizeable lease holdings.").

<sup>36</sup> BOEM itself has acknowledged the importance of option value in assessing leasing, yet has only considered oil price uncertainty without rigorously assessing uncertainties regarding environmental factors, technological development, and the growth of renewable energy. BOEM, 2017–2022 Outer Continental Shelf Oil and Gas Leasing Proposed Final Program 10-3 to 10-16 (2016).

<sup>37</sup> *Ctr. for Sustainable Econ. v. Jewell*, 779 F.3d 588, 610 (D.C. Cir. 2015).

<sup>38</sup> Michael Livermore, *Patience is an Economic Virtue: Real Options, Natural Resources, and Offshore Oil*, 84 U. COLO. L. REV. 581, 638–39 (2013).

Given the high option value of delay, Interior’s lease-now approach is not socially desirable. Analyses from both government agencies and independent economists finds that even more ambitious reforms to the oil and gas program would have negligible impacts in the short term.<sup>39</sup> For instance, an analysis from Resources for the Future finds that a leasing moratorium would not produce any reduction in domestic oil production for five years or in domestic gas production for nine years, and that declines would then proceed gradually.<sup>40</sup> Reductions in domestic oil and gas production would take decades to fully materialize, as recent leasing is likely to result in extraction decades into the future.<sup>41</sup>

Given this backdrop, there is little economic benefit to engaging in additional fossil-fuel leasing at the present moment, since leasing now will have negligible short- to medium-term effects and is not needed in large volumes to “meet national energy needs.”<sup>42</sup> Leasing now does, however, have severe long-term climate costs, as detailed above, since when production does eventually occur it will release substantial climate pollution. Thus, there is a high value in delaying further leasing. If, after fossil-fuel developers have mostly exhausted their reserves, there remains a need for additional energy, then Interior could engage in leasing at that time. But if other energy sources—including renewable sources—meet national demand and there is little need for additional fossil-fuel leasing, then leasing that occurs now would have unnecessarily exacerbated the climate crisis for limited benefit.

Accordingly, option value strongly suggests the federal government should curtail fossil-fuel leasing at this time. With respect to the offshore program, this means that BOEM’s upcoming five-year plan should prioritize renewable-energy generation and conservation. Due to the vast reserves of existing leases, this will result in a gradual, long-term reduction in climate pollution from the federal program while ensuring that America has plentiful energy supplies and allowing time to for production of clean, renewable fuels to increase.

### **B. Economic Theory Counsels for Adjusting Lease Terms to Shift Associated Climate Costs onto Fossil-Fuel Producers**

As discussed above, the social cost of greenhouse gases provides a highly useful tool for assessing the climate impacts of the federal oil and gas program. In particular, the tool can be highly useful for adjusting lease terms to ensure that fossil-fuel producers bear the costs of the climate pollution that they cause. Doing so would correct a market failure and align federal leasing policy with basic economic theory.

In economics, the costs of climate change are known as a negative externality, which is a market failure that results when a cost caused by a producer is not financially borne by that producer. Negative externalities are market failures because producers, lacking financial incentive to do so, do not consider the costs that they impose on third parties—here, the entire public. As a result, the public provides an implicit subsidy to the producer because it bears the

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<sup>39</sup> See Laura Zachary, *The Estimated Effects of a Leasing Pause: A Review of the Modeling Consensus and Why a 2020 Study by Timothy J. Considine Fails to Compute 2–4* (2021) (reviewing literature including studies from the Energy Information Administration and the Federal Reserve Bank of Dallas).

<sup>40</sup> *Id.* at 3.

<sup>41</sup> In its most recent environmental analysis, BOEM assumed a 40-year exploration and development scenario. See BOEM, *Revised Draft Environmental Impact Statement for Cook Inlet Lease Sale 258* (2021).

<sup>42</sup> 43 U.S.C. § 1344(a).



costs that the producer imposes. According to a recent study from the International Monetary Fund, in fact, the United States provided the fossil-fuel industry with \$660 billion in subsidies in 2020, mostly through implicit subsidies.<sup>43</sup>

The market failure of negative externalities can be corrected by “internalizing” the externality—that is, by shifting the external cost from third parties onto the producer. For Interior, this means adjusting lease terms to make the producer pay the social cost of greenhouse gases caused by production on federal lands. The agency has broad authority to adjust lease terms: for instance, resource-management statutes set floors for royalty rates but give the agency wide latitude to set rates above those minimums.<sup>44</sup> As one member of Congress explained before the statute’s enactment, the MLA gives Interior “practically unlimited authority as to the granting and the terms and conditions of leases.”<sup>45</sup> Given the broad concern for climate impacts in land-management statutes, discussed above, Interior undoubtedly has authority to adjust lease terms to internalize environmental impacts.

Adjusting lease terms to eliminate subsidies and shift the cost of climate pollution onto producers could raise billions of dollars in public revenue while simultaneously reducing climate pollution. One recent analysis, in fact, found that incorporating the social cost of greenhouse gases into royalty rates for offshore and onshore oil and gas would increase royalty revenue by \$6 billion annually while reducing climate pollution by over 40 million metric tons per year.<sup>46</sup>

## Conclusion

For decades, the federal government has inadequately considered the climate harms that result from oil and gas leasing on public waters and lands. It is time to restore rationality to the oil and gas program. In particular, federal policy should be based on credible scientific and economic analysis, and as detailed above, such analysis counsels for key reforms including curtailing leasing and adjusting fiscal terms.

I thank the committee for this opportunity and look forward to answering any questions.

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<sup>43</sup> Ian Perry et al., *Still Not Getting Energy Prices Right: A Global and Country Update of Fossil Fuel Subsidies* 26 (Int’l Monetary Fund Working Paper No. 2021/236, 2021).

<sup>44</sup> See 43 U.S.C. § 1337 (a)(1) (setting minimum royalty rate of 12.5 percent of offshore oil and gas revenues); 30 U.S.C. § 226(b)(1)(A) (setting minimum royalty rate of 12.5 percent of onshore oil and gas revenues); *id.* § 207(a) (setting minimum royalty rate of 12.5 percent of surface coal revenues).

<sup>45</sup> 51 Cong. Rec. H14,954 (Sept. 10, 1914) (statement by Mr. Thomson of Illinois).

<sup>46</sup> Prest & Stock, *supra* note 24, at 17 tbl. 3 (assessing impacts of a “welfare-maximizing” climate surcharge based on a \$125 valuation of the social cost of greenhouse gases).