COMMENTS OF FRIENDS OF THE EARTH ON PROPOSED CONSOLIDATED FEDERAL OIL & GAS AND FEDERAL & INDIAN COAL VALUATION REFORM

Friends of the Earth respectfully submits the following comments on the proposed changes to federal regulations proposed by the Department of Interior (DOI) governing the valuation of oil, gas and coal produced from federal leases and coal produced from American Indian-land leases for royalty purposes. An analysis completed by the Climate Accountability Institute for the Center for Biological Diversity (CBD) and Friends of the Earth finds that DOI leasing decisions account for approximately 25% of U.S. emissions from the consumption of all oil, natural gas and coal, which represents around 3-4% of global fossil fuel emissions over the past decade.[1] Based on the significance of the carbon emissions that stem from DOI's decision making, including how it values oil, gas and coal extracted from federal lands, these regulations have a material impact on the ability of U.S. to control its contribution to global carbon emissions. Moreover, the significance of the carbon emissions that stem from DOI's decision making, including how it values oil, gas and coal extracted from federal lands, have a material impact on DOI's ability to satisfy its most basic statutory obligations in how it manages the public land and resources over which it has responsibility.

Friends of the Earth (FoE) is a tax-exempt, nonprofit environmental advocacy organization founded in 1969. Incorporated in the District of Columbia, FoE has over 33,000 members across the country. FoE's primary mission includes defending the environment against harms caused by fossil fuels and greenhouse gas emissions and promoting climate change mitigation through energy conservation and clean energy sources. In support of these goals, FoE offers the following comments on the Office of Natural Resources Revenue's (ONRR) proposed changes to 30 C.F.R. §§1202 and 1206.

I. Introduction

The Department of the Interior (DOI) is responsible for mineral leasing programs on federal and American Indian lands. DOI's mission is to "protect[] and manage[] the Nation's natural resources and cultural heritage; provide[] scientific and other information about those resources; and honor[] the Nation's trust responsibilities or special commitments to American Indians, Alaska Natives, and affiliated island communities."[2] DOI manages 20 percent of the Nation's lands, including over 500 million acres of public lands, 700 million acres of subsurface minerals, and 1.7 billion acres of the Outer Continental Shelf.[3] Federal law requires that DOI manage these lands under policies of "multiple use" and "sustained yield,"[4] meaning that DOI

[1] *See* Rick Heede, *Memorandum to Dunkiel Saunders and Friends of The Earth*, at 5-6 (May 5, 2015) (attached as Exhibit 1-2).
[2] U.S. Department of the Interior, *Strategic Plan for Fiscal Years 2014-2018*, at 7 (*available at* http://www.doi.gov/bpp/upload/DOI-Strategic-Plan-for-FY-2014-2018-POSTED-ON-WEBSITE.pdf) (last visited May 5, 2015).
[3] *Id.* at 8.
[4] 43 U.S.C. § 1732(a).

must balance the competing uses of federal land taking into account "the needs of future generations for renewable and nonrenewable resources" and avoid "permanent impairment of the productivity of the land and the quality of the environment."[5]

A critical part of the leasing program is the collection of royalty payments on behalf of the American people. The billions of dollars in royalties collected annually provide one of the largest sources of non-tax revenue for the federal government. Nonetheless, federal royalty rates remain lower than many oil and gas producing State royalty rates, reducing the revenue that could be returned and undervaluing the use of public lands and resources. These low rates also do not take into account the significant impact of climate change that result from the combustion of extracted fuels, thereby failing to quantify the true financial cost to the American public and American Indians of leasing such public resources to private interests.[6] Additionally, these low federal rates represent a failure of DOI to avoid "permanent impairment" of the public land's productivity and environmental quality.

The changes proposed by ONRR to 30 C.F.R. §§1202 and 1206 are to valuation methodologies for non-arm's-length gas sales and non-arm's-length coal sales only. No major changes to valuation methodologies for oil and arm's-length gas and coal sales are proposed.[7] In total, ONRR estimates the net impact of the changes to valuation will result in an increase of $72.9 to $87.3 million dollars in annual royalties.[8] As ONRR notes, this number represents only "a slight increase" of between 0.8-1.0% of the total federal oil, gas and coal royalties in 2010.[9]

This level of reform is insufficient to address the inadequacies of current valuation methodologies to properly protect public lands. The burning of fossil fuels is the largest source of greenhouse gas emissions in the world, and therefore contributes more to climate change than any other human activity. As climate change impacts are more fully recognized and understood, DOI must account for their costs and impact on public lands, particularly in the leasing of public land for the extraction of fossil fuels. FoE therefore submits that valuation for federal oil, gas, and coal royalties must reflect the amount of greenhouse gases associated with the use and extraction of fossil fuel resources, and the costs of the associated climate change impacts on public lands. ONRR's proposed changes fail to account for these impacts.

The following sections address the environmental basis for updating royalty valuation to include the cost of carbon emissions, potential methodologies, the impacts of carbon emissions from current federal leases, and the legal authority for enacting such change. Based on these comments, FoE respectfully requests that ONRR amend these regulations to include all federal fossil fuel royalty valuations, including arm's-length gas and coal sales and all oil sales. We also

[5] *Id.* at § 1702(c).
[6] Center for Western Priorities, *A Fair Share: The Case for Updating Federal Royalties*, at 3 (June 20, 2013).
[7] Consolidated Federal Oil & Gas and Federal & Indian Coal Valuation Reform, 80 Fed. Reg. 609 (Jan. 6, 2015).
[8] *Id.* at 633.
[9] *Id.*

request that ONRR incorporate the social cost of carbon so that at a minimum royalty payments meet the costs that resource extraction has on the American public, including American Indians.

II. Climate Change and the Need for Updated Resource Valuation in Federal Fossil Fuel Leasing Programs

Over the last few decades, climate change has become a well-studied and observed phenomenon, causing severe environmental impacts worldwide. The last ten years were the warmest decade for every region in the United States, and 2014 was the hottest year on global record.[10] In addition to the significant economic costs and human health risks introduced by climate change, there have been heavy tolls on the natural environment through severe weather incidents and emergencies.[11] Public lands are among those deeply affected by climate changes; the Bureau of Land Management (BLM) has observed increasing droughts, declining snowpack and water supplies in critical areas, thawing of arctic permafrost, and an increase in wildfire size and frequency.[12]

In addition to observing the realities of climate change impacts, science has begun to better understand the causes of climate change. Currently it is estimated that carbon dioxide is 82% of all greenhouse gas (GHG) pollution in the United States, and the single biggest driver of climate change.[13] Since the industrial revolution, the burning of coal, oil and gas, together with deforestation, has increased carbon dioxide concentration in the atmosphere by 40%.[14] Climate change is now recognized by President Obama and administrative agencies, including DOI, as a critical point for regulatory reform. President Obama has committed to addressing climate change and set a U.S. GHG emissions reduction target of 17% below 2005 levels by 2020 and 83% below 2005 levels by 2050.[15] DOI's strategic plan for 2014-2018 includes a commitment to "be a national leader" and "incorporate climate change strategies into management plans, policies, programs, and operations."[16] Such commitment should extend to royalty collection for the very resources that are one of the largest causes of climate change.

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[10] The White House, *Climate Change and President Obama's Action Plan* (*available at* https://www.whitehouse.gov/climate-change#section-impacts) (last visited April 28, 2015).

[11] *Id.* (noting that climate and weather disasters in the U.S. alone cost more than $100 billion in 2012); *see also* The White House, *The Health Impacts of Climate Change on Americans* (June 2014) (*available at https://www.whitehouse.gov/sites/default/files/docs/the_health_impacts_of_climate_change_on_americans_final.pdf*) (last visited April 28, 2015); U.S. Global Change Research Program, *Third National Climate Assessment* (May 2014).

[12] U.S. Department of the Interior, Bureau of Land Management, *Climate Change: BLM's Response* (*http://www.blm.gov/wo/st/en/prog/more/climatechange.html*) (last visited April 28, 2015); *see also* DOI Strategic Plan, *supra* note 1 at 14 (noting impacts observed by Federal resource managers "include drought, severe flooding, interrupted pollination of crops, changes in wildlife and prey behavior, warmer rivers and streams, and sea level rise").

[13] Action Plan, *supra* note 10~~9~~.

[14] Climate Assessment, *supra* note 11~~0~~.

[15] The White House, *Federal Climate Change Expenditures Report to Congress*, at 2 (Aug. 2013).

[16] DOI Strategic Plan, *supra* note 2~~1~~ at 14.

Nonetheless, while climate change science and research have progressed in the last few years, ONRR's valuation regulations have seen remarkably little change. ONRR notes that the current federal oil valuation regulations have been in effect since 2000, with only one amendment related to pricing for certain circumstances.[17] Current federal gas and federal and Indian coal valuation regulations have been in effect since 1988 and 1989, respectively, with minor subsequent amendments.[18] ONRR observes that in the intervening years, "the industry and marketplace have changed dramatically," prompting the need for reform to valuation methodologies.

However, the proposed reform recognizes changes only to the sale structure and pricing of these resources, and ignores dramatic changes to the environmental resources they are produced from and the substantial downstream costs to the public and to land resources from the resulting carbon emissions. Thus, in light of the known impacts of carbon-driven climate change, ONRR's proposed valuation changes are neither an accurate nor up-to-date capture of the value of fossil fuels when considered in terms of their carbon content. There is a cost to introducing carbon into the atmosphere that would not have otherwise been removed from the leased land. This cost should be included in the valuation of fossil fuels and it should provide a minimum price threshold for leases. In other words, fossil fuel prices should be valued higher than they currently are because of the cost of the carbon they contain and the subsequent impacts of that carbon as GHG pollution. Unless environmental externalities from climate change impacts are incorporated into the federal fossil fuel leasing structure, the royalties received will never be a fair assessment of the costs and values involved. As a result, FoE does not believe that these proposed amendments fulfill DOI's statutory responsibility to the public to receive the "fair market value for the use of public lands and their resources."[19] FoE urges ONRR to amend its rulemaking to ensure the cost of carbon emissions are accounted for during fossil fuel valuations.

III. Federal Fossil Fuel Leases and Global Carbon Emissions

In order to estimate the carbon emissions due to fossil fuels produced from federal or American Indian leased lands, CBD and FoE commissioned a report by Richard Heede of the Climate Accountability Institute. His analysis (attached as Exhibit 1) covers oil, natural gas, and coal produced by private companies with leases on federal lands from 2003-2014 and estimates the emissions of carbon dioxide resulting from the marketing and end-use of these fossil fuels.

Based on the findings and conclusions provided by Mr. Heede, fossil fuels extracted from federal and American Indian lands represent a large portion of total U.S. fossil fuels, and are responsible for around a quarter of all U.S. emissions from the combustion of coal, oil and gas, and around 3-4% of global fossil fuel emissions (See Exhibit 2). There is a direct connection between emissions from these fossil fuels and climate change impacts, which would be reduced

[17] Valuation Reform, *supra* note 6, 80 Fed. Reg. at 608.
[18] *Id.*
[19] 43 U.S.C. § 1701(9).

if these fossil fuels were not extracted, sold, and used. Because environmental and economic impacts from climate change can be attributed to the extraction of fossil fuels from federal and American Indian lands, these costs should be accounted for under the current valuation structure.

As Mr. Heede's research shows, the carbon emissions from these fossil fuels make up a substantial portion of all U.S. carbon emissions. Emissions traced to fossil fuels produced on federal and American Indian lands have ranged from a 1.46-1.19 billion tonnes of carbon dioxide over the past decade.[20] Cumulatively, this represents between 22-26% of the total U.S. carbon emissions from coal, oil and natural gas from 2003-2014.[21] Approximately 15% of global fossil fuel emissions can be attributed to the U.S., and the fossil fuels extracted from federal and American Indian leased lands are responsible for between 3-4% of global fossil fuel emissions.

Mr. Heede's analysis further shows that in 2014 over 40% of U.S. coal production came from leases on public lands, while an additional 2% (1.9%) came from leases of American Indian lands.[22] Together, coal extracted from federal and American Indian lands constitute almost 40% of all coal produced in the U.S. Oil and natural gas produced from federal onshore and offshore lands has reached as high as 39% of total production in the U.S. in 2004, and was roughly one-quarter in 2014.[23]

According to Dr. Michael MacCracken, Chief Scientist for Climate Change Programs at the Climate Institute, the carbon emissions attributable to DOI's decision-making have a material and significant impact on U.S. and global carbon emissions.[24] The emissions resulting from DOI's decision-making materially contribute to the environmental impacts and economic costs attributable to climate change due to the release of fossil fuels and the resulting GHG emissions. More specifically, these emissions contribute to increased risks to human health, disruptions to agriculture and food production, the endangerment of water supplies, reduced land cover, and rising sea levels.[25] Thus, DOI's decisions, including those concerning valuation, have a material impact on whether DOI is satisfying its statutory obligations governing the management of federal public lands and resources under its supervision.

IV. The Social Cost of Carbon

Executive Order 12866 directs administrative agencies "[i]n deciding whether and how to regulate" to "assess all costs and benefits of available regulatory alternatives, including the

[20] *Id.* at 4.
[21] *Id.* at 6.
[22] *See* Rick Heede, *Memorandum to Dunkiel Saunders and Friends of The Earth*, at 5-6 (May 5, 2015) (attached as Exhibit 1).
[23] *Id.*
[24] *See* May 06, 2015 Letter from Dr. MacCracken (attached as Exhibit 2).
[25] *See* MacCracken, M. C., 2014: Declaration (Document 1-1) in *Western Org. of Res. Councils v. Jewell*, No. 14-CV-1993, at 24-26 (D.D.C., filed Nov. 24, 2014).

alternative of not regulating."[26] Recognizing that there are "costs and benefits that are difficult to quantify, but nevertheless essential to consider," agencies are responsible for weighing both qualitative and quantitative measures to the extent that they can be usefully estimated, and "should select those approaches that maximize net benefits."[27]

Pursuant to Executive Order 12866, a working group of federal regulatory agencies developed a method for estimating the climate benefits of rulemakings known as the social cost of carbon. The social cost of carbon (SCC) is "an estimate of the monetized damages associated with an incremental increase in carbon emissions in a given year."[28] The SCC was developed using integrated assessment models as a method for agencies to evaluate costs and benefits of regulatory actions that impact cumulative global emissions by quantifying climate change impacts on, among others, changes in net agricultural productivity, human health, property damage, and the value of ecosystem services.[29] Essentially, the SCC represents the estimated economic damage worldwide associated with one metric ton of carbon dioxide emissions in a given year—or, alternatively, the dollar value of avoided damage if a metric ton of carbon dioxide is reduced.[30] By introducing a quantified cost of damages (or avoided damages), the SCC enables federal agencies to incorporate environmental externalities associated with energy production or expenditure into the rulemaking process, and to select regulatory approaches "that maximize net benefits" for the natural environment.

Initially introduced in 2010, the SCC estimates were updated in 2013[31] to reflect the increasing knowledge of climate change impacts, but still do not contain all important damages due to limitations with current data and modeling.[32] As a result, it is very likely that even the updated SCC underestimates damages from a single metric ton of carbon emissions.[33] Since the SCC was introduced in 2010, federal regulatory agencies such as the Environmental Protection Agency (EPA) and Department of Transportation have addressed the SCC in various rulemakings.[34] DOI itself has used the SCC in environmental assessments under the National Environmental Policy Act (NEPA) as recently as February 2015[35], and has addressed use of SCC

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[26] Exec. Order No. 12866, Regulatory Planning and Review, 58 Fed. Reg. 190, § 1(a) (Sept. 30, 1993).
[27] *Id.*
[28] Interagency Working Group on Social Cost of Carbon, *Technical Support Document: Technical Update of the Social Cost of Carbon for Regulatory Impact Analysis under Executive Order 12866*, at 2 (May 2013).
[29] *Id.*
[30] *See* Krupnick, A., et al., *Putting a Carbon Charge on Federal Coal: Legal and Economic Issues*, at 28 (Mar. 2015).
[31] For current 2013 SCC estimates and a full description of values, discount rates, and the integrated assessment modeling assumptions, *see* IWGSCC Technical Support Document, *supra* note 20.
[32] U.S. Environmental Protection Agency, *Fact Sheet: The Social Cost of Carbon*, at 1 (Nov. 2013).
[33] *Id.* ("The models used to develop SCC estimates do not currently include all of the important physical, ecological and economic impacts of climate change recognized in the climate change literature because of a lack of precise information on the nature of damages . . . .").
[34] *See, e.g.*, U.S. Environmental Protection Agency, *Final Rulemaking to Establish Light-Duty Vehicle Greenhouse Gas Emission Standards and Corporate Average Fuel Economy Standards: Regulatory Impact Analysis* (April 2010).
[35] U.S. Department of the Interior, Bureau of Land Management, *Environmental Assessment DOI-BLM-ID-B010-2014-0036-EA: Little Willow Creek Protective Oil and Gas Leasing*, at 80-84 (Feb. 10, 2015); *see also* U.S.

in DOI by BLM field offices in the context of increased consideration of climate change in DOI regulatory decisions.[36] FoE therefore submits that DOI/ONRR should apply the SCC to the present rulemaking, and incorporate the SCC into these royalty valuation regulations as an economic measure of climate change impacts due to fossil fuels extracted from federal and American Indian lands.

V. DOI Should Incorporate the Social Cost of Carbon into Royalties and Valuation for Federal Fossil Fuel Leasing Programs

While FoE supports the proposed amendments to the fossil fuel royalty valuation to the extent that the valuations are higher and therefore produce greater royalties, FoE does not believe that the proposed reform captures the necessary environmental externalities associated with the extraction and sale of these fuels. Rather, the current and proposed valuation regulations only focus on the sale price of the resource extracted, while ignoring the economic cost of the carbon content and subsequent emissions from that resource. Omitting downstream environmental impacts from the valuation of fossil fuels makes them more profitable for lessees, but denies the American public and American Indian groups a substantial amount of royalties that rightfully reflect the true cost of the extraction on the land and atmosphere. More importantly, it passes the cost of the billions of dollars of economic damage due to climate change on to the victims of GHG pollution, rather than assessing those costs on the producers of the fossil fuels that contribute to it.

FoE therefore requests that DOI/ONRR amend the royalty valuation regulations to include the SCC. As the May 2015 DOI memorandum to field offices acknowledges, SCC is currently used in regulatory proceedings. SCC is currently used by EPA and other federal agencies in rulemakings, some examples include:

- The Joint EPA/Department of Transportation Rulemaking to establish Light- Duty Vehicle Greenhouse Gas Emission Standards and Corporate Average Fuel Economy Standards (2012-2016);

- Amendments to the National Emission Standards for Hazardous Air Pollutants and New Source Performance Standards (NSPS) for the Portland Cement Manufacturing Industry;

- Regulatory Impact Results for the Reconsideration Proposal for National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters at Major

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Department of the Interior, Bureau of Land Management, *Environmental Assessment DOI-BLM-MT-C020-2014-0091-EA: Miles City Oil and Gas Lease Sale EA*, at 76-87 (May 19, 2014).

[36] DOI, *Internal Memorandum*, at 1-2 (available at http://www.eenews.net/assets/2015/04/15/document_gw_01.pdf) (last visited May 5, 2015).

Sources;

- Proposed National Emission Standards for Hazardous Air Pollutants (NESHAP) for Mercury Emissions from Mercury Cell Chlor Alkali Plants;

- Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources: Commercial and Industrial Solid Waste Incineration Units Standards;

- Joint EPA/Department of Transportation Rulemaking to establish 2017 and Later Model Year Light.

There is no legal reason why DOI could not incorporate SCC into federal mineral leasing at a number of different points (e.g., increased royalty rate to include the SCC, land rental rates that include the SCC, etc.), with regard to valuation regulations. Assigning a monetary value to the carbon content of fuel and assessing it as a charge in royalty valuation is an important step in recognizing that there is a real cost associated with carbon emissions that can be tied directly to the mineral resources being extracted from federal and American Indian lands. However, it is not the only way SCC could be used by DOI in conjunction with this rulemaking process.

DOI has broad rulemaking authority over the royalty valuation regulations, and incorporating the SCC into the valuation regulations is consistent with current administrative policies and DOI's statutory obligation. Using the SCC is supported by the President's climate change action plan, which prioritizes the reduction of GHG emissions, and with DOI's own climate change initiatives, which pledge to consider climate change as a "factor . . . in the planning and management of resources for utilization of energy" and "to bring the best science to bear to understand [climate change] . . . and will take steps to reduce carbon pollution."[37] Including the SCC in valuation of fossil fuel resources also fulfills DOI's statutory duty to receive a fair value for leased lands, as the "fair market value" does not currently reflect the carbon externality associated with fossil fuel production. Finally, recognizing and internalizing the environmental externalities into the fossil fuel valuation for royalty purposes is critical to satisfying DOI's statutory duty to manage federal lands responsibly for multiple use and sustained yield for future generations.

For the above stated reasons, FoE respectfully requests that ONRR redraft the proposed amendments to the royalty valuation regulations to include the SCC as part of its royalty valuation process.

[37] DOI Strategic Plan, *supra* note 2~~1~~, at 14-15.

VI. The Proposed Amendments have Significant Consequences on the Physical Environment and therefore NEPA should apply

Even if ONRR does not incorporate the SCC into the proposed amendments, the current changes proposed should be subject to a detailed statement under NEPA. ONRR contends that the amendments are purely "of an administrative, financial, legal, technical, or procedural nature" and "would have no consequences with respect to the physical environment"[38] and therefore are not subject to NEPA review under 43 C.F.R. § 46.210(i).

FoE respectfully disagrees with ONRR that NEPA review is not required, as these regulations support the extraction and sale of fossil fuels that are directly linked to carbon emissions causing significant environmental impacts (*see discussion, Section III above).* FoE therefore contends that these amendments fall into several of the extraordinary circumstance exemptions to categorical exclusions under DOI NEPA regulations, as outlined in 43 C.F.R. § 46.215 that trigger review under NEPA. For example, the carbon emissions from fuel sales valued and facilitated by these regulations have "significant impacts on public health and safety," and on "natural resources . . . and other ecologically significant or critical areas," including national parks, rivers, drink water aquifers, prime farmlands, migratory birds, and endangered and threatened species.[39] Further, carbon emissions and GHG pollution have "highly controversial environmental effects"[40] that are part of an ongoing administrative effort to address and recognize the impacts of climate change. Additionally, if ONRR does not consider the SCC in its valuation regulations, that decision could be considered "[e]stablish[ing] a precedent for future action or represent[ing] a decision in principle about future actions with potentially significant environmental effects."

Overall, as discussed in detail in the preceding sections, fossil fuels produced on federal and American Indian lands contribute a significant portion of the GHG emissions in the United States, which have substantial impacts on the natural environment. Because these regulations are responsible for the valuation of those fuels, they facilitate the sale and eventual release of the carbon responsible for significant climate change impacts. As such, any substantive change to the valuation methodologies should be subject to review under NEPA and 43 C.F.R. § 46.215.

VII. Conclusion

ONRR's valuation regulations have a material impact on United States' contributions to fossil fuel emissions, which must be reduced in light of increasing effects from climate change. Based on the substantial portion of United States and global fossil fuel emissions that are directly attributable to fossil fuels produced on federal and American Indian leased lands, extensive

[38] Valuation Reform, *supra* note 7~~6~~ at 642.
[39] 43 C.F.R. § 46.215 (a)-(b); *see, e.g.*, U.S. National Climate Assessment, *Full Report*, http://nca2014.globalchange.gov/report (last visited May 2, 2015).
[40] *Id.* § 46.215(C).

reforms to ONRR's current royalty valuation structure are necessary in order for DOI to fulfill its statutory duties to value and manage the use of public lands. FoE therefore requests that ONRR amend these regulations to include the SCC and account for environmental costs associated with the extraction of fossil fuels on federal and American Indian lands.