



November 3, 2023

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

Subject: Coastal Plain of the Arctic National Wildlife Refuge, 2023 Draft Supplemental Environmental Impact Statement for the Coastal Plain (DOI- BLM-AK-0000-2021-0006-EIS)

The Institute for Policy Integrity at New York University School of Law (Policy Integrity)¹ respectfully submits these comments to the Bureau of Land Management (BLM) on the Draft Coastal Plain Oil and Gas Leasing Program Supplemental Environmental Impact Statement (EIS) in the Arctic National Wildlife Refuge (ANWR).² Policy Integrity is a nonpartisan think tank dedicated to improving the quality of government decisionmaking through advocacy and scholarship in the fields of administrative law, economics, and public policy.

The 2017 Tax Act directed BLM to conduct two sales in the area totaling at least 400,000 acres by 2024.³ BLM released a final environmental impact statement in September 2019 considering the over 1.5 million-acre area in the ANWR⁴ and held the first lease sale in January 2021.⁵ Later in 2021, the agency placed a moratorium on all activities relating to BLM’s Coastal Plain leasing program, announced that the analysis conducted in 2019 was legally deficient, and began to prepare a supplemental environmental impact statement.⁶ **The EIS, which reflects this supplemental analysis, demonstrates considerable improvement from the agency’s 2019 analysis.⁷ Yet there remains room for improvement.** Specifically, to ensure the complete and balanced presentation of climate costs and economic benefits, BLM should:

- **Recognize that its energy-substitution model, EnergySub, produces an underestimate of net greenhouse gas emissions** and update the model to incorporate the likelihood of substantial long-term changes in the energy sector;

¹ This document does not purport to present the views, if any, of New York University School of Law.

² BUREAU OF LAND MGMT., COASTAL PLAIN OIL AND GAS LEASING PROGRAM DRAFT SUPPLEMENTAL IMPACT STATEMENT (2023) [hereinafter “Draft SEIS”].

³ Tax Cuts and Jobs Act of 2017, Pub. L. No. 115-97, § 20001(c)(1), 131 Stat. 2235, 2236-37 (2017).

⁴ BUREAU OF LAND MGMT., COASTAL PLAIN OIL AND GAS LEASING PROGRAM ENVIRONMENTAL IMPACT STATEMENT, (2019); Bureau of Land Mgmt., Interior Announces Availability of Coastal Plain Oil and Gas Leasing Program Final Environmental Impact Statement (September 12, 2019), <https://www.doi.gov/pressreleases/interior-announces-availability-coastal-plain-oil-and-gas-leasing-program-final>.

⁵ BUREAU OF LAND MGMT., COASTAL PLAIN OF THE ARCTIC NATIONAL WILDLIFE REFUGE (2023), <https://www.blm.gov/programs/energy-and-minerals/oil-and-gas/about/alaska/coastal-plain-arctic-national-wildlife-refuge>.

⁶ BUREAU OF LAND MGMT., COMPREHENSIVE ANALYSIS AND TEMPORARY HALT ON ALL ACTIVITIES IN THE ARCTIC NATIONAL WILDLIFE REFUGE RELATING TO THE COASTAL PLAIN OIL AND GAS LEASING PROGRAM (June 1, 2021), <https://www.doi.gov/sites/doi.gov/files/elips/documents/so-3401-comprehensive-analysis-and-temporary-halt-on-all-activities-in-the-arctic-national-wildlife-refuge-relating-to-the-coastal-plain-oil-and-gas-leasing-program.pdf>.

⁷ BUREAU OF LAND MGMT., COASTAL PLAIN OIL AND GAS LEASING PROGRAM ENVIRONMENTAL IMPACT STATEMENT (2019).

- **Recognize that its social cost of greenhouse gases estimates are conservative** and consider applying newer federal valuations in line that reflect expert consensus; and
- **Update its economic benefits analysis** to ensure consistency with its presentation of climate costs.

We expand on each of these three points below.

I. BLM Should Recognize, and Address, that Its Net Emissions Figures Underestimate Climate Impacts Because They Fail to Account for Structural Changes in the Energy Sector

To quantify the greenhouse gas emissions that would result from this lease sale, BLM performs what is known as a substitution analysis. But due to structural limitations of that analysis, BLM derives what is likely a substantial underestimate of the net greenhouse gas emissions. At a minimum, BLM should acknowledge that the greenhouse gas emissions resulting from this lease sale are likely higher than its quantitative analysis reports. BLM should also aim to correct these modeling limitations and can look for guidance to a recent analysis from the Bureau of Ocean Energy Management (BOEM).

BLM’s quantification of greenhouse gas emissions entailed three essential steps. First, BLM estimated the gross emissions from production, transportation, and combustion of the produced oil using established emissions factors.⁸ Second, BLM performed a substitution analysis in which it assessed what other energy sources (including “oil, natural gas, other fossil fuels, and renewables”) production in the Coastal Plan would displace.⁹ Using the same emissions factors, BLM then quantified the lifecycle greenhouse gas emissions from those displaced energy sources. Third, BLM subtracted displaced and induced emissions from the *gross* emissions established in step one to quantify the project’s *net* emissions.¹⁰

For its substitution analysis, BLM used a model known as the BLM Energy Substitution Model (or EnergySub), which is based on BOEM’s Market Simulation Model (or MarketSim).¹¹ As a result, BLM inherits a major limitation in MarketSim—namely, the model’s “simplifying assumption that current regulations and consumption patterns will not change over the long term,”¹² which overlooks the likelihood of “new laws and policies” with potentially “significant implications for energy markets and substitutes in the coming decades.”¹³ Furthermore, even without new policies, “[t]echnological innovation” could “transform[] how energy will be produced and consumed” and thereby alter the historical energy-market dynamics on which EnergySub’s and MarketSim’s parameter values are based.¹⁴

⁸ Draft SEIS at 3-9.

⁹ *Id.* Additionally, as part of this substitution analysis, BLM quantified the increase in foreign energy consumption resulting from the fact that this lease sale will “increase the global oil supply and place downward pressure on global oil prices,” thereby increasing global oil sales. *Id.*

¹⁰ *Id.* at 3-10 (“The net [greenhouse gas] emissions are then calculated by subtracting the [greenhouse gas] emissions from the displaced energy sources from the gross emissions under each action alternative.”).

¹¹ *Id.* at R-1 (“Although EnergySub includes substantive updates to enable the model to simulate changes in onshore mineral development, it retains much of the overall structure and functionality of the MarketSim model.”).

¹² *Id.* at R-25.

¹³ *Id.*

¹⁴ *See id.*

While BLM correctly points out this limitation, it should more closely assess its implications. BLM should do this in two ways. First, BLM should conclude that this limitation likely produces an overestimate of emissions from displaced sources and thus an underestimate of the lease sale’s net emissions. This result is because future policies and technological penetration such as electric vehicles and heat pumps becoming more prevalent are likely to make electrification a more frequent and reliable oil substitute.¹⁵ Moreover, with the electrical grid becoming increasingly reliant on renewable energy and less reliant on fossil fuels, this means that as oil production displaces electricity, it will be displacing an increasing share of renewable energy.¹⁶ Accordingly, this lease sale is likely to increase oil demand and displace renewables more than BLM’s modeling projects.

BLM does not acknowledge that its modeling limitations produce an underestimate of net emissions. Yet BOEM—which, once again, designed the model on which BLM’s substitution analysis is based—recognizes this bias. Specifically, BOEM has explained that energy-market evolution “will result in greater energy substitution from renewable sources and a greater reduction in consumption than is currently projected.”¹⁷ Accordingly, BOEM recognizes that emissions under the no-leasing baseline “would be less than in the standard baseline given that there would be less substitution with imports and a greater reduction in reduced demand.”¹⁸ BLM should follow BOEM’s lead and acknowledge that the limitations in its substitution modeling produce an underestimate of the lease sale’s net greenhouse gas emissions.

Second, BLM should correct the limitations in EnergySub by performing additional substitution modeling. Specifically, BLM should consider parameter values more consistent with considerable decarbonization over the coming decades. Once again, BLM can look to BOEM for guidance. In its recent five-year offshore-leasing plan, BOEM conducted sensitivity analysis in which it adjusted MarketSim’s elasticity and quantity values based on the economics literature and re-ran the model.¹⁹ Consistent with BOEM’s hypothesis, the agency found emissions under the no-leasing scenario to be substantially lower—and, accordingly, net emissions from new leasing to be substantially higher—than MarketSim’s primary runs projected.²⁰ BLM should perform additional substitution analysis consistent with BOEM’s recent analysis.

II. BLM’s Social Cost of Greenhouse Gases Estimates, Though Reasonable as Conservative Estimates, Greatly Understate the Lease Sale’s Climate Costs and Counsel for Additional Analysis Using Updated Valuations

Assessing the climate and environmental effects of the lease sales includes not only quantifying emissions but also assessing the incremental climate change damages that those emissions will cause. One way that BLM assesses climate damages is by monetizing greenhouse gas emissions. To estimate incremental climate change damages, BLM applies the 2021 interim social cost of greenhouse gases values developed by the Interagency Working Group on the Social Cost of

¹⁵ See PETER HOWARD ET AL., INST. FOR POL’Y INTEGRITY, THE REAL COSTS OF OFFSHORE OIL AND GAS LEASING 5 (2022).

¹⁶ *Id.*

¹⁷ BUREAU OF OCEAN ENERGY MGMT., 2024–2029 NATIONAL OUTER CONTINENTAL SHELF OIL AND GAS LEASING PROPOSED FINAL PROGRAM 6 (2023).

¹⁸ *Id.* at 5-31.

¹⁹ BUREAU OF OCEAN ENERGY MGMT., ECONOMIC ANALYSIS METHODOLOGY 2024–2029 NATIONAL OUTER CONTINENTAL SHELF OIL AND GAS LEASING PROPOSED FINAL PROGRAM 4-15 to 4-16 (2023).

²⁰ *Id.* at 4-19 tbl.4-7 (reporting net lifecycle emissions from primary and alternative runs).

Greenhouse Gases.²¹ In its 2021 update, however, the Interagency Working Group acknowledged that its valuations were substantial underestimates due to their high discount rates and omission of the latest climate science and economics.²² In other words, BLM uses outdated estimates that are widely agreed to underestimate the full social costs of greenhouse gas emissions.²³

BLM follows the Interagency Working Group’s guidelines and provides values for three discount rates: 2.5%, 3%, and 5%, as well as the 95th percentile of damages estimate at a 3% annual discount rate. While including the 95th percentile of damages is a welcome consideration in the EIS, the Interagency Working Group recognized that its full range of values “likely underestimate societal damages” from greenhouse gas emissions.²⁴ BLM’s depiction of the 95th percentile value as “higher-than-expected economic impacts from climate change” and a “low probability, but high damage scenario”²⁵ is therefore misleading and lacking context. To provide proper contextualization, BLM should acknowledge that the climate damage valuations it applies are underestimates (rather than suggesting the opposite) and treat them as such in its leasing determinations related to Coastal Plain.

To further address this issue, BLM should perform additional analysis using the U.S. Environmental Protection Agency’s (EPA) 2022 draft estimates, which are substantially higher than the Interagency Working Group estimates and thereby support the Interagency Working Group’s finding that its numbers are conservative.²⁶ EPA’s draft valuations, released in November 2022, faithfully apply recent advances in science and economics on the costs of climate change and implement the roadmap laid out in 2017 by the National Academies of Sciences for updating the social cost of greenhouse gases.²⁷ And while EPA’s draft valuations remain underestimates,²⁸ they more fully account for the costs of climate change by incorporating the latest available research on climate science, damages, and discount rates.²⁹ BLM should therefore apply EPA’s climate-damage valuations to more fully capture the climate impacts that will result from this lease sale.

III. Relative to Its Estimate of Climate Cost, BLM’s Estimates of Economic Benefit Are Inflated Because They Reflect Gross Rather than Net Figures

In addition to monetizing climate damages from the lease sale, BLM also provides economic benefit estimates such as government revenues projected from leasing and potential future

²¹ Draft SEIS at F-3.

²² See INTERAGENCY WORKING GRP. ON THE SOCIAL COST OF GREENHOUSE GASES, TECHNICAL SUPPORT DOCUMENT: SOCIAL COST OF CARBON, METHANE, AND NITROUS OXIDE INTERIM ESTIMATES UNDER EXECUTIVE ORDER 13990 AT 31 (2021) (recognizing that the Working Group’s estimates “underestimate societal damages from [greenhouse gas] emissions”).

²³ *Id.* at 31 (2021) (acknowledging that current social cost valuations “likely underestimate societal damages from [greenhouse gas] emissions”); Richard L. Revesz et al., *Global Warming: Improve Economic Models of Climate Change*, 508 NATURE 173 (2014) (co-authored with Nobel Prize-winning economist Kenneth Arrow).

²⁴ Interagency Working Grp., *supra* note 22, at 4 (2021).

²⁵ Draft SEIS at F-4.

²⁶ EPA External Review Draft of Report on the Social Cost of Greenhouse Gases (2022) [Draft SC-GHG Update].

²⁷ NAT’L ACADS. SCI., ENGINEERING & MED., VALUING CLIMATE DAMAGES: UPDATING ESTIMATION OF THE SOCIAL COST OF CARBON DIOXIDE (2017).

²⁸ Draft SC-GHG Update 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[.]”).

²⁹ Max Sarinsky, Inst. For Pol’y Integrity, *The Social Cost of Carbon: Options for Applying a Metric in Flux* (2023).

development and jobs created from future exploration, development, and production.³⁰ Yet unlike its presentation of greenhouse gas emissions and climate costs, BLM arrives at these economic-benefit projections using gross instead of net estimates. In net terms, BLM's economic projections overstate the economic benefits of this lease sale because those benefits will partially come at the expense of revenues and royalties that displaced production in other regions would have generated. In other words, because some of the benefits attributed to this lease sale would occur in other regions should the upcoming Coastal Plain lease sales not occur, the economic benefits provided in the EIS are not the complete picture.

To better assess the complete picture, BLM should consider its energy substitution analysis (ideally revised per the recommendations above) showing that the energy production resulting from the lease sales in Coastal Plain will displace other energy production (including both fossil fuels and renewables) elsewhere. Once more, BLM can look to its sister agency BOEM for guidance. In its recent five-year offshore leasing plan, BOEM recognized that displaced production would also generate domestic economic benefits and presented estimates of net economic benefits that account for this displacement effect.³¹ Following BOEM's approach, BLM should also modify its analysis of economic benefits to account for the lost economic benefits from displaced projects. At a minimum, BLM should discuss this impact qualitatively and recognize that its economic-benefit projections are vast overestimates compared to its analysis of climate costs.

Sincerely,

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³⁰ Draft SEIS at B-27.

³¹ Bureau of Ocean Energy Mgmt., *supra* note 17, at 5-20 to 5-21 (calculating gross economic benefits of proposed sales, benefits from displaced production, and net economic benefits of proposed sales by subtracting the displaced benefits from the gross benefits).