States of California, Maryland, New Mexico, New Jersey, Oregon, and Washington

June 15, 2023

<u>Via Email</u>

Acting Chief Timothy Barnes National Coal Program Review U.S. Bureau of Land Management 1849 C Street NW, Room 5622 Washington, DC 20240 BLM_HQ_320_CoalProgramReview@blm.gov

RE: Comments on the U.S. Bureau of Land Management's Notice of Intent to Prepare an Environmental Impact Statement to Analyze the Potential Environmental Effects from Maintaining Secretary Jewell's Coal Leasing Moratorium, 88 Fed. Reg. 26,588 (May 1, 2023)

Dear Acting Chief Barnes:

The undersigned State Attorneys General of California, Maryland, New Jersey, New Mexico, Oregon, and Washington (the "States") respectfully submit these comments on the U.S. Bureau of Land Management's ("BLM") Notice of Intent To Prepare an Environmental Impact Statement To Analyze the Potential Environmental Effects From Maintaining Secretary Jewell's Coal Leasing Moratorium, 88 Fed. Reg. 26,588 (May 1, 2023).

Since 2017, the States have been actively working to ensure that BLM undertakes a review that considers the direct, indirect, and cumulative environmental impacts of federal coal leasing activities, which have not been comprehensively evaluated since 1979, and to ensure that the program is in the public interest and achieving a fair return for the nation.¹ In 2021, the BLM published notice of its intent to "begin[] a new review of the Federal coal leasing program."² Several States submitted comments urging comprehensive analysis of the actual costs and benefits of the program to the American public.³ Separate from that programmatic review, and as a result of litigation under the National Environmental Policy Act ("NEPA," 42 U.S.C. § 4321 *et seq.*) challenging the order issued by Secretary Zinke in 2017 that lifted a moratorium on the coal

¹ See, e.g., Citizens for Clean Energy v. U.S. Dep't of the Interior ("Citizens for Clean Energy I"), 384 F. Supp. 3d 1264 (D. Mont. 2019); Citizens for Clean Energy v. U.S. Dep't of the Interior (Citizens for Clean Energy II"), 621 F. Supp. 3d 1165 (D. Mont. 2022).
² 86 Fed. Reg. 46,873, 48,876 (Aug. 20, 2021).

³ See Oct. 5, 2021 Letter to Thomas Huebner by California, New Mexico, New York, and Washington re: Comments on the U.S. Bureau of Land Management's Notice of Intent to Conduct a Review of the Federal Coal Leasing Program, 86 Fed. Reg. 46,873 (Aug. 20, 2021), submitted via BLM_HQ_320_CoalProgramReview@blm.gov.

leasing program,⁴ the Montana district court in 2022 directed the BLM to "consider the full scope of the Zinke Order's effect on all then-pending lease applications *and other connected, cumulative, or similar actions.*"⁵ Whether in the context of the pending programmatic review or the NEPA review at issue here, the States urge the BLM to seriously consider maintaining the moratorium on future coal leases indefinitely and/or to follow through with much needed comprehensive reforms to the federal coal leasing program.

As the district court's 2022 ruling makes clear, the BLM's review must consider all direct, indirect, and cumulative environmental impacts of any and all future coal leases—not just the impacts of a subset of leases over a finite period of time.⁶ To be clear, these impacts must be considered against a baseline—established by the existing moratorium—where *no additional leases* are issued, ever. (This no-future-lease baseline must exclude four leases issued under Secretary Zinke; the moratorium had not lawfully been lifted when those leases were issued.)

And as discussed in detail below, the environmental impacts—and associated costs attributable to resuming the coal leasing program cannot be overstated. As the latest scientific research confirms, climate change "is already affecting every inhabited region across the globe."⁷ According to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change ("IPCC"), many of the effects of climate change due to past and future greenhouse gas ("GHG") emissions "are irreversible for centuries to millennia," especially changes in ocean acidification, melting ice sheets, droughts, and increasing sea levels.⁸ As temperatures continue to rise, these impacts are expected to increase in both intensity and frequency.⁹ The IPCC has further stated that to stabilize human-induced global temperature increase at any level, humankind *must* reach net zero anthropogenic carbon dioxide ("CO₂") emissions by 2050.¹⁰ A carbon budget would thereafter establish the amount of CO₂ that could be emitted while keeping global warming rates below a certain level.¹¹ Based on the latest research, it is now recognized that a majority of the Earth's unextracted fossil fuel reserves—including 90 percent of coal must remain in the ground in order to achieve these goals.¹²

⁴ Secretarial Order 3348, issued by Secretary of the Interior Ryan Zinke, entitled "Concerning the Federal Coal Moratorium" (Mar. 29, 2017) ("Zinke Order").

⁵ *Citizens for Clean Energy II*, 621 F. Supp. 3d at 1175 (D. Mont. 2022) (referencing 40 C.F.R. § 1508.25) (emphasis added).

⁶ *Id.* at 1173.

⁷ Intergovernmental Panel on Climate Change, *AR6 Climate Change 2021: The Physical Science Basis* (Aug. 7, 2021), *available at:* https://www.ipcc.ch/report/ar6/wg1/#SPM. ⁸ *Id.*

⁹ *Id*.

 $^{^{10}}$ Id.

¹¹ *Id*.

¹² Dan Welsby et al., *Unextractable fossil fuels in a 1.5 °C world*, NATURE 597, 230–234 (2021), *available at:* https://doi.org/10.1038/s41586-021-03821-8.

The States have long been leaders in pursuing policies and innovations to reduce greenhouse gas emissions and thereby mitigate the harmful impacts of climate change. Notwithstanding these ongoing efforts, climate change has increasingly and dramatically affected the States in recent years. In the past few years alone, California experienced the two worst fire seasons in recorded history followed by this winter's (2022–23) catastrophic flooding, while in September 2021, Hurricane Ida left a path of destruction from the Gulf Coast to New York—events that are all directly connected to our warming planet.¹³ Consequently, the States have a substantial interest in ensuring that the federal coal leasing program, which has been estimated to account for 11 percent of total U.S. GHG emissions,¹⁴ does not undermine their efforts.

In addition, the BLM has never analyzed or otherwise accounted for the environmental justice impacts of the federal coal leasing program, including the direct impacts of coal mining, storage and transport on communities that are already disproportionately burdened by environmental pollution. For example, the transport of coal in open-top train cars across the western U.S. negatively affects local air quality due to the release of particulate matter pollution and toxic materials in low-income and minority communities that are already disproportionately impacted by environmental pollution.¹⁵ As an ever-greater percentage of domestically produced coal is exported in ports across the United States such as those along the West Coast, it is port workers and surrounding communities who most suffer the public health consequences when coal dust escapes into the air.¹⁶ Further adding to these burdens, climate change itself is now imposing increasing and disproportionate environmental harms on low-income communities, communities of color, and tribal and indigenous communities, including impacts related to air quality, heat waves, and flooding.¹⁷ Such impacts must be considered prior to any new federal coal leasing.

¹³ See, e.g., Tom Clynes, What has California's flooding (and drought) got to do with climate change?, ENV'T DEF. FUND (Jan. 23, 2023), available at: https://www.edf.org/article/what-has-californias-flooding-and-drought-got-do-climate-change; Rebecca Hersher, How Climate Change Is Fueling Hurricanes Like Ida, NAT'L PUB. RADIO (Aug. 30, 2021), available at: https://www.npr.org/2021/08/30/1032442544/how-climate-change-is-fueling-hurricanes-like-ida. ¹⁴ BLM, Federal Coal Program: Programmatic Environmental Impact Statement—Scoping

Report (Jan. 2017) ("Scoping Report") at 5-31.

¹⁵ See, e.g., OSTRO ET AL., *infra* note 114, at v.

¹⁶ See, e.g., id.

¹⁷ See, e.g., U.S. Env't Prot. Agency, *Climate Change and Social Vulnerability in the United States: A Focus on Six Impacts* (Sept. 2021) ("EPA Climate Report"), *available at:* https://www.epa.gov/cira/social-vulnerability-report; U.S. Env't Prot. Agency, *Climate Change, Health, & Environmental Justice* (May 2016), *available at:*

https://www.cmu.edu/steinbrenner/EPA%20Factsheets/ej-health-climate-change.pdf; U.S. Global Change Research Program, *The Impacts of Climate Change on Human Health in the United States: A Scientific Assessment*, ch. 9: Populations of Concern (Crimmins, A., *et al.*, eds) (2016), *available at:* https://health2016.globalchange.gov/.

Furthermore, the BLM has at least two distinct legal obligations under the Mineral Leasing Act and the Federal Land Policy and Management Act to ensure that the "fair market value" it charges for leasing reflects the actual costs of coal production, so that the public receives appropriate compensation when these resources are extracted from our public lands. But for decades now the outdated structure for the management of federal coal has artificially depressed the amount of royalties received from the development of these resources, leaving the States and their residents to bear the direct and indirect costs of this program without adequate and required compensation.

The BLM also must consider whether continued coal leasing serves the public interest. Not only does coal present costly climate change impacts, but domestic demand for coal has plummeted in recent decades as it has struggled to compete with ever more cost-effective sources of energy.¹⁸ It follows that the coal extracted from American soil not only harms but does not directly benefit the American public. The economic rationale for continued coal extraction thus rests on increasingly shaky ground, even barring its immense environmental costs, and it is crucial to assess whether "locking in for decades the future development of large quantities of coal" is in the public interest as mandated by statute.¹⁹

The BLM's comprehensive review of the federal coal leasing program is long overdue. The BLM must consider all forward-looking impacts of the federal coal leasing program against a baseline of an indefinite moratorium, starting from the day the moratorium was first imposed.²⁰ Consistent with comments submitted in 2021 in response to a similar notice of intent regarding programmatic review of the coal leasing program (see footnote 2, above), the States encourage the agency to take the required "hard look" at the considerable data regarding the GHG emissions associated with coal production and the harms attributable to climate change, among many other significant impacts of the coal leasing program. The States believe there is ample support for maintaining the moratorium on coal leasing indefinitely. Should the BLM decide to resume the coal leasing program—and to be clear, the States do not believe such action is warranted—the BLM should improve and modernize the program to address its legal defects and to bolster our nation's climate and environmental justice goals, including as the program is applied to existing leases.

¹⁸ See, e.g., Samantha Gross, *Why there's no bringing coal back*, BROOKINGS INST. (Jan. 16, 2019), *available at:* https://www.brookings.edu/blog/planetpolicy/2019/01/16/why-theres-no-bringing-coal-back/.

¹⁹ See Secretarial Order No. 3338, Discretionary Programmatic Environmental Impact Statement to Modernize the Federal Coal Program (Jan. 15, 2016) at Section 5. See also discussion of FLPMA and MLA statutory requirements, *supra* Specific Comments on the BLM's Notice of Intent Section III.

²⁰ See Citizens for Clean Energy II, 621 F.Supp.3d at 1173 ("The 'status quo' that existed before the Zinke Order was a moratorium on coal leasing. Because the baseline alternative must consider the status quo, BLM was required to begin its analysis from that point.").

BACKGROUND

I. Statutory Background.

A. Mineral Leasing Act.

The Mineral Leasing Act ("MLA," 30 U.S.C. § 181 *et seq.*), authorizes and governs the leasing of public lands for the production of coal and other minerals. Pursuant to the MLA, the Secretary of the Interior is authorized—but not required—to lease coal on public lands "as he finds appropriate and in the public interest," provided that every sale is made by competitive bid and provides the public with fair market value.²¹ The MLA further requires that the Secretary only lease coal in a manner that balances "long-term benefits to the public against short-term benefits."²² The BLM is the federal agency within the Department of the Interior (the "Department") tasked with administering the federal coal leasing program.

B. Federal Land Policy and Management Act.

The Federal Land Policy and Management Act ("FLPMA," 43 U.S.C. § 1701 *et seq.*), establishes the broad framework under which the BLM manages public lands for multiple uses in a way "that will best meet the present and future needs of the American people."²³ Under FLPMA, Congress declared it is the policy of the United States that "public lands be managed in a manner that will protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archeological values."²⁴ FLPMA also requires that the United States "receive fair market value of the use of the public lands and their resources."²⁵

C. National Environmental Policy Act.

The National Environmental Policy Act, or "NEPA" (42 U.S.C. § 4321 *et seq.*), "is our basic national charter for protection of the environment."²⁶ NEPA has two fundamental purposes: (1) to guarantee that agencies take a "hard look" at the consequences of their actions before the actions occur by ensuring that "the agency, in reaching its decision, will have available, and will carefully consider, detailed information concerning significant environmental impacts," and (2) to ensure that "the relevant information will be made available to the larger

²¹ 30 U.S.C. § 201(a)(1).

²² See 30 U.S.C. § 201(a)(3) (requiring that any coal lease sale be compatible with a "comprehensive land-use plan"). The FLPMA further mandates that the Secretary of Interior "weigh long-term benefits to the public against short-term benefits" when developing and revising land use plans. 43 U.S.C. § 1712(c)(7).

²³ 43 U.S.C. § 1702(c); *see also id.* § 1712(c)(7) (in developing land use plans, the BLM must "weigh long-term benefits to the public against short-term benefits").

 $^{^{24}}$ Id. § 1701(a)(8).

²⁵ *Id.* § 1701(a)(9).

²⁶ Center for Biological Diversity v. Bernhardt, 982 F.3d 723, 734 (9th Cir. 2020) (citation omitted).

audience that may also play a role in both the decisionmaking process and the implementation of that decision."²⁷

NEPA requires the preparation of a detailed environmental impact statement ("EIS") for any "major federal action significantly affecting the quality of the human environment."²⁸ In conducting this analysis, an agency is required to take a "hard look" at the direct, indirect, and cumulative impacts of its proposed action.²⁹ As relevant here, the Ninth Circuit Court of Appeals has found that "[t]he impact of greenhouse gas emissions on climate change is precisely the kind of cumulative impacts analysis that NEPA requires agencies to conduct."³⁰

The U.S. Supreme Court has found that a programmatic EIS for the federal coal program is required by NEPA because the program "is a coherent plan of national scope, and its adoption surely has significant environmental consequences."³¹ Moreover, even where an EIS has already been prepared, agencies have a duty to supplement that analysis where, as here, "[t]here are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts."³²

NEPA was recently amended by the Builder Act (Title III of Division C of the 2023 Fiscal Responsibility Act), which was enacted to suspend the debt ceiling and avoid a default on U.S. debt. Nothing in those amendments narrows the scope of impacts the BLM must consider or weakens the standards it must meet in analyzing the environmental impacts of the federal coal leasing program.

II. The Federal Coal Leasing Program.

A. Program Background.

The BLM manages coal resources on 700 million acres of mineral estate owned or otherwise administered by the federal government.³³ During fiscal year 2022, the BLM administered 283 coal leases encompassing approximately 427,000 acres in 11 states, with the majority of production coming from the Powder River Basin in Montana and Wyoming.³⁴

²⁷ Robertson v. Methow Valley Citizens Council, 490 U.S. 332, 349–50 (1989).

²⁸ 42 U.S.C. § 4332(2)(C).

²⁹ Idaho Sporting Cong. v. Rittenhouse, 305 F.3d 957, 973 (9th Cir. 2002).

³⁰ Center for Biological Diversity v. Nat'l Highway Traffic Safety Admin., 538 F.3d 1172, 1217 (9th Cir. 2008).

³¹ Kleppe v. Sierra Club, 427 U.S. 390, 400 (1976).

³² 40 C.F.R. § 1502.9(d)(1)(ii); *Marsh v. Oregon Nat. Res. Council*, 490 U.S. 360, 372–74 (1989) (NEPA requires "that agencies take a 'hard look' at the environmental effects of their planned action, even after a proposal has received initial approval").

³³ See 88 Fed. Reg. at 26,589.

³⁴ *National Coal Statistics*, BUREAU OF LAND MGMT., https://www.blm.gov/programs/energyand-minerals/coal/coal-data (click on "Download BLM National Coal Statistics" to download an Excel spreadsheet with the cited figures) (last visited Jun. 1, 2023).

Moreover, there are 19 federal coal leases encompassing 35,257 acres in New Mexico.³⁵ The majority of federal coal is used to generate electricity domestically, accounting for an estimated 14 percent of the nation's electricity and 11 percent of total U.S. greenhouse gas emissions.³⁶ However, approximately 15 percent of all U.S. coal is exported,³⁷ a figure which has nearly doubled since the BLM first commenced their reassessment of the federal coal program in 2017, as many coal companies attempt to compensate for decreasing domestic demand, including through proposed terminals in California and Washington.³⁸

The BLM manages the federal coal leasing program pursuant to regulations and a programmatic environmental impact statement ("PEIS") that were originally adopted 44 years ago, at a time when the threat of climate change was not fully understood, and market conditions, infrastructure development, scientific understanding, and national priorities were dramatically different.³⁹ Adopted in 1975, the first PEIS for the federal coal program was found to be unlawful because it failed to adequately discuss, or allow comment on, a new coal leasing system and did not sufficiently consider alternatives.⁴⁰ Separately, the U.S. Supreme Court recognized, in a case challenging the lack of NEPA review for the development of coal in the Northern Great Plains Region, that the federal coal program required a national-level PEIS because it "[was] a coherent plan of national scope" with "significant environmental consequences."⁴¹ Around the same time, Congress passed the Federal Coal Leasing Amendments Act of 1975,⁴² which updated sections of the MLA related to fair market value and speculation.

These changes led to the preparation of a new PEIS in 1979, which analyzed seven alternatives for the federal coal program, including the alternative that was ultimately chosen and largely remains in place today. This program sets forth two primary leasing procedures.⁴³ First, under the "regional" leasing procedure, the BLM leases tracts based on recommendations from the ten regional coal teams. Second, under the "leasing by application" procedure, the leasing process is initiated by industry, which identifies where and how much coal it wants to lease. Despite being approximately 1,300 pages long, the 1979 PEIS contained almost no discussion of climate change. The PEIS was last revisited in 1985, when the BLM updated its coal leasing regulations and completed a limited supplement in response to recommendations from the Commission on Fair Market Value Policy for Federal Coal Leasing, which addressed continued

³⁵ *Id*.

³⁶ Scoping Report, *supra* note 8, at ES-1, 5-31.

³⁷ Coal Imports and Exports, U.S. ENERGY INFO. ADMIN. (Jun. 8, 2022), https://www.eia.gov/energyexplained/coal/imports-and-exports.

³⁸ Scoping Report, *supra* note 8, at 5-29.

³⁹ See 44 Fed. Reg. 42,584 (July 19, 1979).

⁴⁰ Nat. Res. Def. Council v. Hughes, 437 F. Supp. 981, 989–91 (D.D.C. 1977).

⁴¹ *Kleppe*, 427 U.S. at 400.

⁴² Pub. L. No. 94-377, 90 Stat. 1083 (1976).

⁴³ *Id.* at 5-7.

irregularities in the leasing process.⁴⁴ This supplement once more made no mention of climate change.

Between 1987 and 1990, all six certified coal-producing regions were "decertified" by the BLM, such that all federal coal leasing since 1990 has been the result of industry application.⁴⁵ During the 1990s and 2000s, the Powder River Basin became the primary area of federal coal leasing and production as federal coal began to command a much larger share of national coal production, with the Basin currently accounting for 42 percent of the U.S. total.⁴⁶

B. Recent Criticism of the Federal Coal Leasing Program.

In recent years, Congress and government watchdogs have criticized the BLM's outdated structure for the management of federal coal. Addressing the statutory "fair market value" leasing standard under the MLA, the Department's Office of the Inspector General in 2013 issued a report concluding that the "BLM faces significant challenges in the areas of coal leasing and mine inspection and enforcement," and that its management resulted in millions of dollars in lost royalties to the federal treasury because the agency was "not receiving the full, fair market value for the leases."⁴⁷ The Inspector General made several recommendations necessary to "enhance [the BLM's] coal management program significantly" ⁴⁸ and recover these lost revenues.

Also in 2013, the Government Accountability Office ("GAO") concluded that the BLM had failed to ensure that mining companies pay fair market value for leasing federal coal.⁴⁹ GAO determined that since 1990, "most" federal coal leases were not sold competitively and had only a single bidder. In particular, of the 107 tracts that were leased between 1990 and 2012, "sales for 96 (about 90 percent) involved a single bidder … which was generally the company that submitted the lease application. More than 90 percent of the lease applications the BLM received were for maintenance tracts used to extend the life of an existing mine or to expand that mine's annual production."⁵⁰

⁴⁴ *Id.* at 5-6-5-7.

⁴⁵ *Id.* at 5-7.

⁴⁶ *Id.* at 5-8, 5-11.

⁴⁷ Off. of the Inspector Gen., U.S. Dep't of the Interior, *Coal Management Program, U.S. Department of the Interior* (June 2013), *available at:*

https://www.doioig.gov/sites/default/files/2021-migration/CR-EV-BLM-0001-2012Public.pdf. ⁴⁸ *Id.* at 19.

 ⁴⁹ U.S. Gov't Accountability Off., GAO-14-140, *Coal Leasing: BLM Could Enhance Appraisal Process, More Explicitly Consider Coal Exports, and Provide More Public Information* (Dec. 2013), *available at:* http://www.gao.gov/products/GAO-14-140.
 ⁵⁰ Id. at 16.

C. Secretarial Order 3338—the Jewell Order.

In response to these concerns and others raised by members of Congress, interested stakeholders, and the public, on March 17, 2015, then-Secretary of the Interior Sally Jewell called for "an honest and open conversation about modernizing the Federal coal program."⁵¹ The BLM subsequently held listening sessions around the country that summer, hearing from 289 individuals and otherwise receiving over 94,000 written comments.⁵² The oral and written comments reflected several recurring concerns, in particular: that American taxpayers are not receiving a fair return for the leasing of public coal resources; that the federal coal program conflicts with the country's national climate goals; and that the structure of the federal coal program was not appropriate for current market conditions, given how implementation of the federal leasing program affects current and future coal markets, coal-dependent communities and companies, and the reclamation of mined lands.

On January 15, 2016, Secretary Jewell issued Secretarial Order 3338, commencing a process to prepare a new programmatic EIS for the federal coal program and putting in place a moratorium on most new leasing activity until that review was complete.⁵³ The Jewell Order cited the BLM's legal obligations "to ensure conservation of the public lands, the protection of their scientific, historic, and environmental values, and compliance with applicable environmental laws" as well as the agency's "statutory duty to ensure a fair return to the taxpayer."⁵⁴ In determining that it was appropriate to suspend the issuance of new federal coal leases while the BLM undertook a comprehensive review, the Secretary explained:

Lease sales and lease modifications result in lease terms of 20 years and for so long thereafter as coal is produced in commercial quantities. Continuing to conduct lease sales or approve lease modifications during this programmatic review risks locking in for decades the future development of large quantities of coal under current rates and terms that the PEIS may ultimately determine to be less than optimal.⁵⁵

The Secretary also stated that "[n]umerous scientific studies" since the program's 1979 PEIS was last updated "indicate that reducing [greenhouse gas] emissions from coal use worldwide is critical to addressing climate change."⁵⁶ Thus, the Secretary determined that "a more comprehensive, programmatic review [was] in order," which "should examine how best to assess the climate impacts of continued Federal coal production and combustion and how to

⁵¹ Scoping Report, *supra* note 8, at ES-3.

⁵² *Id*.

⁵³ See Secretarial Order No. 3338, Discretionary Programmatic Environmental Impact Statement to Modernize the Federal Coal Program (Jan. 15, 2016) (the "Jewell Order").

⁵⁴ *Id.*, Section 4.

⁵⁵ *Id.*, Section 5.

⁵⁶ *Id.*, Section 2.b.ii.

address those impacts in the management of the program to meet both the Nation's energy needs and its climate goals."⁵⁷

In March 2016, the BLM began a scoping process under NEPA by issuing a Notice of Intent to Prepare a Programmatic Environmental Impact Statement to Review the Federal Coal Program and to Conduct Public Scoping Meetings.⁵⁸ During the spring and summer of 2016, the BLM accepted more than 214,000 public comments and held six public meetings in various cities regarding its review of the federal coal program.⁵⁹

On January 11, 2017, the BLM released its Scoping Report, which found that "modernization of the Federal coal program is warranted."⁶⁰ The BLM stated that "[t]his modernization should focus on ensuring a fair return to Americans for the sale of their public coal resources; addressing the coal program's impact on the challenge of climate change; and improving the structure and efficiency of the coal program in light of current market conditions, including impacts on communities."⁶¹ As the BLM summarized in the Scoping Report:

The last time the Federal coal program received a comprehensive review was in the mid-1980s, and most of the existing regulations were promulgated in the late 1970s and have been only slightly modified since that time. The direct, indirect, and cumulative impacts of the Federal coal program have not been fully analyzed under the National Environmental Policy Act (NEPA) in over thirty years.⁶²

Consequently, the BLM stated that it would move forward with the preparation of a draft programmatic EIS by January 2018 regarding the modernization of the federal coal program, and issue a final PEIS by January 2019.⁶³

D. Secretarial Order 3348—the Zinke Order.

However, following the change in administration, the successor to Secretary Jewell, Ryan Zinke, issued an order that revoked the Jewell Order, restarted the federal coal program, and terminated the environmental review process.⁶⁴ The States challenged this action in federal district court in Montana, alleging that the BLM's decision to restart the federal coal leasing program without any environmental review violated NEPA.⁶⁵ The States also alleged violations of the MLA and FLPMA, because the action was taken without considering whether the program

⁵⁷ *Id.*, Section 4.

⁵⁸ 81 Fed. Reg. 17,720 (Mar. 30, 2016).

⁵⁹ Scoping Report, *supra* note 8, at ES-3.

⁶⁰ *Id.* at ES-4.

⁶¹ Id.

⁶² *Id.* at ES-2.

⁶³ *Id.* at ES-3.

⁶⁴ Secretarial Order 3348, Concerning the Federal Coal Moratorium (Mar. 29, 2017) (the "Zinke Order").

⁶⁵ State of California v. Zinke, Case No. CV-17-42-GF-BMM (complaint filed May 9, 2017).

is in the public interest or provides fair market value to the public. The case was consolidated with an earlier challenge filed by citizen and tribal groups.⁶⁶

On April 19, 2019, the court issued an order on cross-motions for summary judgment finding that the BLM's decision to restart the federal coal leasing program constituted a "major federal action" subject to the requirements of NEPA.⁶⁷ The court determined that it could not decide the State's MLA and FLPMA claims "until Federal Defendants have completed their environmental review."⁶⁸

In response to this ruling, the BLM issued a Final Environmental Assessment ("EA") and Finding of No Significant Impact ("FONSI") in February 2020, which considered the effects of only four leases that were issued since March 2017, and limited its analysis to GHG emissions, socioeconomic impacts, and water quality impacts. The States filed a supplemental complaint challenging the Final EA and FONSI on July 23, 2020.

E. Executive Order 13990.

On January 20, 2021, on his first day in office, President Biden issued Executive Order 13990.⁶⁹ Executive Order 13990 commanded all executive departments and agencies to review the prior administration's actions and "immediately commence work to confront the climate crisis." Executive Order 13990 also called upon the federal government to "advance environmental justice" where it has failed to do so in the past.

F. Secretarial Order 3398—the Haaland Order.

On April 16, 2021, Secretary of the Interior Deb Haaland issued Secretarial Order 3398,⁷⁰ which was issued to implement the review ordered by Executive Order 13990. The Haaland Order stated that it is "Department policy to listen to the science; to address societal inequities and create opportunities for the American people; to conserve and restore our land, water, and wildlife; to reduce greenhouse gas emissions; to create jobs through a growing clean energy economy; and to bolster resilience to the impacts of climate change." The Haaland Order specifically revoked the Zinke Order and called upon the Department to "review and revise as necessary all policies and instructions that implemented [the Zinke Order] or that are otherwise inconsistent with the policies set for in" Executive Order 13990.

⁶⁶ Citizens for Clean Energy v. U.S. Dep't of the Interior, Case No. 4:17-cv-30-BMM (D. Mont. complaint filed March 29, 2017).

⁶⁷ Citizens for Clean Energy I, 384 F. Supp. 3d at 1279.

⁶⁸ *Id.* at 1282.

⁶⁹ Executive Order 13990, Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis, 86 Fed. Reg. 7,037 (Jan. 25, 2021).

⁷⁰ Secretarial Order 3398, Revocation of Secretary's Orders Inconsistent with Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis (April 16, 2021) (the "Haaland Order").

In response to the Haaland Order, state, citizen, and tribal group plaintiffs in the *Citizens for Clean Energy* litigation agreed to a six month stay of proceedings. However, upon plaintiffs' request, proceedings then resumed due to a lack of progress during the six month stay.⁷¹

On August 12, 2022, the court issued an order on cross-motions for summary judgment and a motion to dismiss for lack of jurisdiction by defendant-intervenor, the National Mining Association ("NMA").⁷² Denying the NMA's motion to dismiss and granting summary judgment in favor of the plaintiffs on their NEPA claim, the court found that the BLM's February 2020 Final EA "fail[ed] to consider all direct, indirect, and cumulative impacts of re-starting the federal coal-leasing program" and therefore did not take the "hard look" at environmental consequences required by NEPA.⁷³ Moreover, the court held that the "BLM improperly cabined its NEPA analysis for ending the coal leasing moratorium to the [four] leases granted during the estimated PEIS timeline."⁷⁴ Instead, the BLM should have considered a "potential alternative that provided a baseline of an *indefinite moratorium*," and "considered the effect of restarting coal leasing from a forward-looking perspective, including connected actions."⁷⁵ Finally, the court found that the BLM's analysis of the four leases it did consider in the Final EA was "arbitrarily curtailed and failed to consider relevant factors" beyond climate, socioeconomic, or water resource impacts and market effects.⁷⁶

SPECIFIC COMMENTS ON BLM'S NOTICE OF INTENT

The court's 2022 order makes clear that the BLM must consider the full scope of direct, indirect, and cumulative environmental impacts of the federal coal leasing program, and that those impacts must be analyzed against a baseline that is defined by the status quo that existed in 2016, after the moratorium was imposed (and *before* four leases were unlawfully issued under Secretary Zinke).⁷⁷ In other words, the BLM must consider as one alternative that there is no further coal production on federal land.

In addition to the direct impacts of the coal leasing program on air and water quality, wildlife habitat, and cultural resources (among other things), the BLM must also consider the indirect and cumulative impacts of coal leasing on climate, including the far-reaching harms attributable to climate change. The BLM must also consider impacts on environmental justice communities; such communities both suffer the brunt of climate change harms and are *directly* impacted by the transport, storage and export of coal that is produced on federal lands.

⁷¹ See Citizens for Clean Energy II, 621 F. Supp. 3d at 1170.

⁷² *Id.* at 1169.

⁷³ Id. at 1173 (citing 40 C.F.R. § 1508.25) (internal quotations omitted).

⁷⁴ Id.

⁷⁵ *Id.* (emphasis added).

 $^{^{76}}$ Id. at 1174.

⁷⁷ *Id.* at 1173.

I. The BLM Must Account for the Significant Climate Impacts of the Federal Coal Leasing Program.

As discussed above, the federal coal leasing program represents a significant portion of total U.S. greenhouse gas emissions. Yet, the resulting adverse climate-change impacts on the States have never been properly accounted for. Climate change impacts in the United States have increased dramatically in recent years and will likely continue to worsen for the foreseeable future. The last nine years have been the warmest on record,⁷⁸ with 2023 well on pace to continue this streak.⁷⁹ Wildfires, heat waves, the frequency and severity of extreme weather events, sea-level rise, declines in agriculture and food production, droughts, floods, and other climate-change harms have become regular and increasing threats to our residents' health as well as our economies and natural resources.⁸⁰

• <u>Severe Weather Events:</u> In California, greenhouse gas emissions, and the corresponding impacts of climate change, have taken a heavy toll on the state's economy, people, and natural resources. Between 1980 and 2023, there have been 46 "billion-dollar weather events," amounting to \$100 billion to \$200 billion of damage just in California.⁸¹ The pace of harms is only accelerating, as up to half of the cost incurred during this forty three year period has come in the last five years of disasters alone.⁸² In New York, extreme storms such as Irene in 2011, Sandy in 2012, and Ida in 2021 are more frequent because of climate change and have caused huge amounts of harm, with Superstorm Sandy alone responsible for 53 deaths and at least \$30 billion in damages in the state.⁸³

⁷⁸ NASA Says 2022 Fifth Warmest Year on Record, Warming Trend Continues, NAT'L AERONAUTICS & SPACE ADMIN., (Jan. 12, 2023), available at: https://www.nasa.gov/press-release/nasa-says-2022-fifth-warmest-year-on-record-warming-trend-continues.

⁷⁹ Zeke Hausfather, *State of the climate: Growing El Nino threatens more extreme heat in 2023,* CARBONBRIEF, (Apr. 28, 2023), *available at:* https://www.carbonbrief.org/state-of-the-climate-growing-el-nino-threatens-more-extreme-heat-in-2023/.

⁸⁰ See, e.g., U.S. Global Change Research Prog., *Climate Science Special Report: Fourth National Climate Assessment*, Vol. I, at 10 (D.J. Wuebbles, et al. eds.) (2017) ("U.S. 4th Assessment Volume I"), *available at:* https://science2017.globalchange.gov/.

 ⁸¹ Nat'l Oceanic & Atmospheric Admin., *Billion-Dollar Weather and Climate Disasters:* Summary Stats, available at: https://www.ncdc.noaa.gov/billions/summary-stats.
 ⁸² Id.

⁸³ Centers for Disease Control & Prevention, *Deaths Associated with Hurricane Sandy*— *October-November 2012* (May 24, 2013), *available at:*

https://www.cdc.gov/mmwr/preview/mmwrhtml/mm6220a1.htm. FEMA expenditures in New York totaled \$14.1 billion. FEMA, New York Hurricane Sandy, *available at:*

https://www.fema.gov/disaster/4085. U.S. Department of Housing and Urban Development expenditures totaled \$7 billion. Dept. of Housing & Urban Dev't, HUD Announces Additional \$5.1 Billion in Recovery Funds for Communities Impacted by Hurricane Sandy, *available at:* https://archives.hud.gov/news/2013/pr13-153.cfm. Total insurance payments in New York State totaled \$8.3 billion, including National Flood Insurance payments, and private auto, homeowner,

Ida resulted in the first flash flood warning in New York City's history and set a City record of 3.15 inches of rain in one hour.⁸⁴ This year, California was battered by a series of successive atmospheric rivers which caused severe flooding and record snowfall and harmed homes, businesses, and infrastructure across the state.⁸⁵

• <u>Wildfires:</u> In the past three decades, the frequency, size, and intensity of forest fires have all significantly increased. Wildfires account for two-thirds of California's "billion-dollar" disasters (there have been 19 such fires between 1980 and 2023).⁸⁶ Five of the top ten biggest California wildfires all took place in 2020, burning almost 2.5 million acres combined and constituting the worst fire season in state history.⁸⁷ The following fire season in 2021 was again catastrophic, with California facing "unprecedented fire conditions" ⁸⁸ as the Dixie Fire became the largest single wildfire in state history.⁸⁹ The latest IPCC report found that "[p]rojections of increased fire weather in a warmer climate are widespread ... and may drive increased fire frequency and severity in several regions."⁹⁰ According to California's latest climate change assessment, "[b]y 2100, if greenhouse gas emissions continue to rise, ... the frequency of extreme wildfires burning over approximately 25,000 acres would increase by nearly 50 percent, and that average area burned statewide would increase by 77 percent by the end of the century. In the areas that have the highest fire risk, wildfire insurance is estimated to see costs rise by 18 percent by 2055 and the fraction of property insured would decrease."⁹¹ Many major

and commercial property insurance. Hurricane Sandy Rebuilding Task Force, Hurricane Sandy Rebuilding Strategy at 29 (August 2013), *available at:*

https://archives.hud.gov/news/2013/HSRebuildingStrategy.pdf.

⁸⁴ A. Dewan, *Ida turns New York City into a front line of extreme weather supercharged by climate change*, NBC News (Sept. 2, 2021), *available at:*

https://www.cnn.com/2021/09/02/world/ida-climate-change-floods-rain-intl/index.html. ⁸⁵ See Nat'l Oceanic & Atmospheric Admin., *supra* note 37.

⁸⁶ Nat'l Oceanic & Atmospheric Admin., *Billion-Dollar Weather and Climate Disasters: Summary Stats, supra*, note 37.

⁸⁷ CalFire, Top 20 Largest California Wildfires, *available at:* https://www.fire.ca.gov/media/4jandlhh/top20_acres.pdf.

⁸⁸ CalFire, 2021 Fire Year, *available at:* https://www.fire.ca.gov/incidents/2021.

⁸⁹ Colby Bermel, *Dixie Fire becomes largest single wildfire in California history*, POLITICO (Aug. 6, 2021), *available at:* https://www.politico.com/states/california/story/2021/08/06/dixie-fire-becomes-largest-single-wildfire-in-california-history-1389651.

⁹⁰ IPCC, *AR6 Climate Change 2021: The Physical Science Basis* (Aug. 7, 2021) at 5-62, *available at:* https://www.ipcc.ch/report/ar6/wg1/#SPM.

⁹¹ State of California, *California's Fourth Climate Change Assessment—Statewide Summary Report* (Aug. 2018) ("Calif. 4th Assessment") at 9, *available at*:

https://www.energy.ca.gov/sites/default/files/2019-11/Statewide_Reports-SUM-CCCA4-2018-013_Statewide_Summary_Report_ADA.pdf.

insurers are already refusing to extend new policies in California, citing in part the increasing toll exacted by wildfires in the state.⁹²

Moreover, events just last week demonstrated that the hazards from wildfires are no longer limited to the West Coast. Unprecedented wildfires in eastern Canada brought hazardous levels of PM_{2.5} and other air contaminants to New York, New Jersey and other parts of the eastern United States. As a result, extensive air quality advisories were put in place, and for a period New York City had the worst air quality of any city in the world. The air quality index reached levels well within the zone deemed hazardous and 24 times the World Health Organization's recommended exposure guideline, and asthma-related emergency room visits in the City reached their highest level for 2023.⁹³

• <u>Air quality and public health:</u> As the U.S. Environmental Protection Agency ("EPA") found in 2016, "climate change is expected to increase ozone pollution over broad areas of the country, including large metropolitan population centers, and thereby increase the risks of respiratory infection, aggravation of asthma, and premature death." 81 Fed. Reg. at 54,452. Over 100 million people in the U.S., including nearly 35 million Californians and nearly 12.5 million New Yorkers, live with air that exceeds the EPA's health standard for ozone.⁹⁴ Not only does climate change increase this air pollutant, but as mentioned, it also exacerbates wildfires. Wildfire smoke contains high levels of a particularly dangerous type of soot known as PM_{2.5} (particulate matter with a diameter less than 2.5 µm), and Californians have become increasingly vulnerable to respiratory and other impacts given the current wildfire and air quality conditions. In Oregon, during extreme wildfires in September 2020, the Air Quality Index in Portland reached levels

https://www.sfchronicle.com/california/article/insurance-allstate-fires-18130622.php (reporting that Allstate and State Farm both stopped issuing new homeowner policies in California, while "AIG and Chubb had pulled coverage for some customers in recent years").

⁹³ See, e.g., Lenthang, M. and Heilsel, P., Air quality concerns continue as Canadian wildfire smoke covers the Northeast, NBC News (June 7, 2023; updated June 8, 2023), https://www.nbcnews.com/news/us-news/nyc-officials-announce-advisories-5-boroughs-alarming-air-quality-conc-rcna88090; Jimenez, G., *ER Visits for Asthma in New York City Soared as Wildfire Smoke Blanketed the Region*, Inside Climate News (June 14, 2023), https://insideclimatenews.org/news/14062023/new-york-er-asthma-willdfire-smoke/

⁹⁴ Becker, Rachel, *Trump's smog decision fails to protect Californians from unhealthy air, experts say*, CalMatters (July 15, 2020), *available at*:

https://calmatters.org/health/2020/07/trump-smog-air-quality-protection/; EPA, 8-Hour Ozone (2015) Nonattainment Area State/Area/County Report (identifying nonattainment counties), *available at:* https://www3.epa.gov/airquality/greenbook/jncs.html#NY; U.S. Census Bureau, Annual Estimates of the Resident Population for Counties in New York: April 1, 2010 to July 1, 2019 (providing county population estimates), *available at:* https://www2.census.gov/programs-surveys/popest/tables/2010-2019/counties/totals/co-est2019-annres-36.xlsx.

⁹² See, e.g., Claire Hao, Yet another home insurance giant quietly stops writing new policies in California, S.F. CHRON. (Jun. 2, 2023), available at:

higher (indicating high risks to human health) than those in any other major city worldwide (IQAir 2020⁹⁵). The AQI in Portland was considered hazardous for three consecutive days, and unhealthy for seven consecutive days (IQAIR 2020).

- **Drought and water resources:** Owing to its unique hydrology and water infrastructure, California relies heavily on snowpack for irrigation and drinking water alike. However, from 2020 to 2022, California suffered the driest three year stretch in its recorded history that led to \$2 billion in economic damages and over 19,000 jobs lost in 2022 alone.⁹⁶ As a result of diminished precipitation and warming temperatures, glaciers in the Sierra Nevada (a significant source of fresh water) have lost an average of 70 percent of their area since the start of the 20th century.⁹⁷ These glaciers lost another 30 percent of their remaining area in just the last five years such that several no longer technically even qualify as glaciers.⁹⁸ Climate change is expected to further diminish fresh-water storage in the form of seasonal and permanent snow pack, exacerbating drought conditions in the state. And while California has historically relied on water from the Colorado River to supplement snowpack sources, climate change-exacerbated drought has contributed to a "slow-motion disaster" across the west given the river's dwindling water supply.⁹⁹ These losses in fresh-water input and storage have had-and will continue to have-devastating impacts on the state's cities, agriculture, and diverse ecosystems.¹⁰⁰ Such chronic, longduration droughts are increasingly likely under high-emissions scenarios if GHG emissions are not curbed.¹⁰¹
- <u>Sea level rise:</u> Studies estimate that between one- and two-thirds of Southern California beaches may completely erode by 2100 without large-scale human interventions.

⁹⁵ https://www.iqair.com/us/blog/wildfires/washington-oregon-fires-choke-northwest

⁹⁶ Patty Guerra, Continued Drought Conditions Add Billions in California Agricultural Losses, UC Merced Report Finds, UC MERCED (Nov. 22, 2022), available at:

https://news.ucmerced.edu/news/2022/continued-drought-conditions-add-billions-california-agriculture-losses%C2%A0uc-merced-report.

⁹⁷ Calif. 4th Assessment, *supra* note 47, at 13.

⁹⁸ Mauri Pelto, *Sierra Nevada, California Glaciers Rapid Decline 2018-2022*, AM. GEOPHYSICAL UNION (Apr. 3, 2023), *available at:*

https://blogs.agu.org/fromaglaciersperspective/2023/04/03/sierra-nevada-california-glaciers-rapid-decline-2018-

^{2022/#:~:}text=The%20area%20has%20declined%20~30,no%20longer%20qualify%20as%20gla ciers.

⁹⁹ Soumya Karlamangla, *What the Colorado River Deal Means for California*, N.Y. TIMES (May 23, 2023), *available at*: https://www.nytimes.com/2023/05/23/us/colorado-river-drought-california.html.

¹⁰⁰ Calif. 4th Assessment, *supra* note 47, at 56–57.

¹⁰¹ See, e.g., U.S. Global Change Research Prog., *Climate Science Special Report: Fourth National Climate Assessment*, Vol. II, at 1127 (David Reidmiller et al. eds.) (2018) ("U.S. 4th Assessment Volume II"), *available at:* https://nca2018.globalchange.gov/.

Statewide damages could reach nearly \$17.9 billion from the inundation of residential and commercial buildings.¹⁰²

- Natural resource and ecosystem threats: In California, dramatic bark beetle • infestations—driven by warming winters and drought—have created unprecedented conifer die-offs, especially in parts of the southern Sierra Nevada, where tree mortality is nearly 100 percent.¹⁰³ This has further contributed to the dramatic wildfire conditions faced by the state in recent years. Iconic California plant and animal species face severe habitat shifts and destruction due to climate change, including the Joshua tree (up to 90 percent loss of habitat), giant sequoia, elephant seal, desert tortoise, and bighorn sheep.¹⁰⁴
- Agricultural threats: In California, which produces over half the nation's specialty crops, agriculture is projected to experience lower crop yields due to drought, extreme heat waves, heat stress, and increased water needs of crops and livestock.¹⁰⁵
- **Transportation infrastructure:** Climate change is likely to have negative effects on • transportation infrastructure absent substantial new investments. An assessment conducted by the Oregon Department of Transportation, Federal Highway Administration, and local government authorities in 2014¹⁰⁶ identified vulnerabilities to climate change and extreme weather on highways in the Coast Range, roads in lowelevation areas that increasingly are prone to flooding, and the transportation infrastructure in coastal areas that are exposed to storm surges and Inundation, both of which are becoming more frequent as anthropogenic climate change continues. Seismic Lifeline Routes in Oregon, intended to facilitate emergency response and recovery after an earthquake, also were found to be vulnerable.

Although California has enacted several policies and programs and invested billions of dollars to both respond to the impacts of climate change and to address future threats, these efforts are undermined by the continued leasing, mining, burning, and exporting of federal coal. For example, California has set a statutory target of reducing GHG emissions by 40 percent below 1990 levels by 2030,¹⁰⁷ an already ambitious goal which the California Air Resources Board ("CARB") now aims to exceed in targeting reductions of 48 percent below 1990 levels by

¹⁰² Calif. 4th Assessment, *supra* note 47, at 9.

¹⁰³ *Id.* at 61; *see also* U.S. 4th Assessment, Vol. II, at 1116–17.

¹⁰⁴ Gonzalez, Patrick, Climate Change Trends, Impacts, and Vulnerabilities in U.S. National Parks, in Beissinger, S.R., et al. (eds.), Science, Conservation, and National Parks (U. Chicago Press 2017), at 118–125.

¹⁰⁵ Calif. 4th Assessment, *supra* note 47, at 59.

¹⁰⁶ Oregon Department of Transportation (ODOT), Climate change vulnerability assessment and adaptation options study (2014); www.oregon.gov/ODOT/Programs/TDD%20Documents/ Climate-Change-Vulnerability-Assessment-Adaptation-Options-Study.pdf. ¹⁰⁷ Cal. Health & Safety Code § 38566.

2030.¹⁰⁸ On September 16, 2022, Governor Gavin Newsom signed a historic package of legislation to cut pollution and advance California's goal to become carbon neutral by 2045, making a record breaking \$54 billion investment in climate action.¹⁰⁹ In just the next two decades, the legislation mandates that the State cut air pollution by 60 percent, reduce fossil fuel use in buildings and transportation by 92 percent, and cut refinery pollution by 94 percent among other benefits.¹¹⁰ On September 23, 2020, the Governor signed an Executive Order requiring all new cars and passenger trucks sold in California to be zero emission vehicles by 2035, ¹¹¹ a world-leading plan now bolstered by CARB's recently approved rule to ban all new gasoline-powered vehicle sales in the same time frame.¹¹²

Moreover, California passed a law in 2006 that effectively prohibited long-term electricity contracts with coal power plants.¹¹³ In 2022, coal fueled only about 0.1 percent of California's net electricity generation.¹¹⁴ California's imports of coal-fired generation are projected to end by 2026.¹¹⁵

New York has also taken extensive measures to respond to the threats from climate change, caused in part by burning and transporting coal mined on federal lands. Among other efforts since 2009, New York and other eastern states have participated in the Regional Greenhouse Gas Initiative ("RGGI"), a "cap-and-invest" system that limits carbon dioxide from power plants and then uses the proceeds from auctioning emission allowances to invest in programs that reduce energy demand and keep down electricity prices.¹¹⁶ In 2019, New York enacted the Climate Leadership and Community Protection Act (the "N.Y. Climate Act").¹¹⁷ The

¹⁰⁸ Nadia Lopez, *California approves far-reaching strategy for tackling climate change. So what's next?*, CALMATTERS (Dec. 15, 2022), *available at:*

https://calmatters.org/environment/2022/12/california-plan-climate-change/.

¹⁰⁹ Office of Gov. Gavin Newsom, *Governor Newsom Signs Sweeping Climate Measures, Ushering in New Era of World-Leading Climate Action* (Sep. 16, 2022), *available at:* https://www.gov.ca.gov/2022/09/16/governor-newsom-signs-sweeping-climate-measures-ushering-in-new-era-of-world-leading-climate-action/.

¹¹¹ Governor Gavin Newsom, Executive Order N-79-20 (Sept. 23, 2020), *available at*: https://www.gov.ca.gov/wp-content/uploads/2020/09/9.23.20-EO-N-79-20-Climate.pdf.

¹¹² Nadia Lopez, *California phases out new gas cars – so what's next for electric cars?*, CALMATTERS (Aug. 26, 2022), *available at:* https://calmatters.org/environment/2022/08/electric-cars-california-to-phase-out-gas-cars/.

¹¹³ See California Pub. Util. Code §§ 8340-41.

¹¹⁴ EIA, *California State Profile and Energy Estimates* (Jun. 2, 2023), *available at:* https://www.eia.gov/state/analysis.php?sid=CA#33.

¹¹⁵ *Id*.

¹¹⁶ See generally Acadia Center, *The Regional Greenhouse Gas Initiative: 10 Years in Review* (Sept. 17, 2019) at 2, *available at:* https://acadiacenter.org/wp-content/uploads/2019/09/Acadia-Center_RGGI_10-Years-in-Review_2019-09-17.pdf.

¹¹⁷ N.Y. L 2019, c. 106.

N.Y. Climate Act requires that statewide GHG emissions be reduced by 40 percent from 1990 levels by 2030, and reduced by 85 percent from 1990 levels by 2050.¹¹⁸ The Act requires that the statewide electricity system in particular be emissions-free by 2040.¹¹⁹ The Act also created a Climate Justice Working Group, which this spring adopted the criteria for identifying disadvantaged climate justice communities to which at least 35 percent of the benefits from clean energy and energy efficiency programs and related projects or investments shall be directed. The state's 2022 Scoping Plan, made pursuant to the Act and submitted to the Governor and State Legislature at the start of this year, elaborates upon these goals in proposing a state-level emissions cap and invest program, new investments in energy efficiency improvements, and a bar on the use of fossil fuels in all new constructions and major renovations by 2027.¹²⁰

Like California and New York, Washington experiences many negative effects of climate change, including rising ambient temperatures, a diminished and unpredictable snowpack that is necessary for water consumption and hydropower generation, and ocean warming and acidification, which is harmful to Washington's marine ecosystems including its shellfish industry.¹²¹ Without mitigation of further greenhouse gas emissions, ocean acidification along Washington's coast is predicted to cause a 34 percent decline in shellfish survival by 2100.¹²² According to the University of Washington, climate change adversely affects Washington's water resources by decreasing snowpack, increasing stream temperatures, decreasing summer minimum streamflows, and causing widespread changes in streamflow timing and flood risk.¹²³ These changes increase the potential for more frequent summer water shortages in some basins (e.g., the Yakima basin) and for some water uses (e.g., irrigated agriculture or instream flow management), particularly in fully allocated watersheds with little management flexibility.¹²⁴

Washington's forests are likely to experience significant changes in the establishment, growth, and distribution of tree species as a result of increasing temperatures, declining snowpack, and changes in soil moisture.¹²⁵ A rise in forest mortality is also expected due to

https://www.politico.com/news/2022/12/19/new-york-emissions-climate-change-00074600.

¹²¹ State of Knowledge: Climate Change in Puget Sound (Nov. 2015), Climate Impacts Group, University of Washington, (hereinafter "State of Knowledge, Puget Sound"); *available at*: https://cig.uw.edu/resources/special-reports/ps-sok/.

¹¹⁸ N.Y. Environmental Conservation Law § 75-0107; *see also* 6 N.Y.C.R.R. Part 496, Statewide Greenhouse Gas Emission Limits.

¹¹⁹ N.Y. Public Service Law § 66-p(2).

¹²⁰ Marie J. French, New York passes sweeping plan to reduce emissions and 'lead the way on solving climate change', POLITICO (Dec. 19, 2022), available at:

¹²² State of Knowledge Report, Climate Change Impacts and Adaptation in Washington State: Technical Summaries for Decision Makers, (Dec. 2013), Climate Impacts Group, University of Washington (hereinafter "State of Knowledge Report"), at 8-4; *available at:* https://cig.uw.edu/resources/special-reports/wa-sok/.

¹²³ *Id.* at ES-4.

¹²⁴ *Id.* at 6-5, 6-6, 6-11, 6-12.

¹²⁵ *Id.* at ES-4.

increasing wildfire, insect outbreaks, and diseases.¹²⁶ Sea level is projected to rise in most coastal and marine areas of the state, increasing the likelihood for permanent inundation of low-lying areas, higher tidal and storm surge reach, flooding, erosion, and changes and loss of habitat. Sea level rise, rising coastal ocean temperatures, and ocean acidification will also affect the geographical range, abundance, and diversity of Pacific Coast marine species.¹²⁷

Climate change is expected to affect both the physical and mental health of Washington's residents by altering the frequency, duration, and intensity of climate-related hazards to which individuals and communities are exposed.¹²⁸ Health impacts include higher rates of heat-related illnesses (e.g., heat exhaustion and stroke); respiratory illnesses (e.g., allergies, asthma); cardiovascular diseases, vector-, water-, and food-borne diseases; and mental health stress (e.g., depression, anxiety).¹²⁹ These impacts can lead to increased absences from schools and work, emergency room visits, hospitalizations, and deaths.¹³⁰ In particular, increased forest fire activity in Washington has led to an increase in unhealthy air days, impacting public health.¹³¹

In response to these impacts from climate change, Washington has enacted statutes and made significant investments to reduce greenhouse gas emissions and slow the pace of climate change. In the 2021 legislative session alone, Washington enacted the Climate Commitment Act, a low carbon fuel standard, and the Healthy Environment for All Act, a landmark environmental justice law. A cap-and-invest program established by the Climate Commitment Act launched in January of this year as part of the state's wide-ranging efforts to achieve net-zero carbon emissions by 2050.¹³²

Similarly, New Mexico is already significantly impacted by climate change. The period from 2000 to 2022 was the driest span in the American southwest since at least the year 800.¹³³ Importantly, models indicate that human-caused climate change is responsible for nearly half of

¹²⁶ *Id.* at 7-2, 7-3.

¹²⁷ *Id.* at ES-5.

¹²⁸ *Id*.

¹²⁹ *Id.*; *see also* EPA, *Why Wildfire Smoke is a Health Concern* (last updated Oct. 20, 2022), *available at:* https://www.epa.gov/wildfire-smoke-course/why-wildfire-smoke-health-concern. ¹³⁰ State of Knowledge Report, *supra* note 73, at ES-5.

¹³¹ *Id.* at 12-5.

¹³² Washington's cap-and-invest program, WASH. DEP'T. OF ECOLOGY (last accessed Jun. 2, 2023), available at: https://ecology.wa.gov/Air-Climate/Climate-Commitment-Act/Cap-and-invest.

¹³³ Megadrought in Southwest Is Now the Worst in at Least 1,200 Years, Study Confirms, COLUMBIA CLIMATE SCHOOL (Feb. 14, 2022), available at:

https://news.climate.columbia.edu/2022/02/14/megadrought-in-southwest-is-now-the-worst-in-at-least-1200-years-study-confirms/.

the soil moisture deficit since 2000.¹³⁴ Nor has the drought ended. At the beginning of 2021, 99.6 percent of New Mexico was in severe to exceptional drought.¹³⁵ And while recent rainfalls have provided some relief, approximately 19 percent of the state remains in severe to extreme drought,¹³⁶ and the state's largest reservoir (Elephant Butte) is filled to only 26 percent of its capacity as of June 2023.¹³⁷

Like California and other western states, New Mexico has also experienced increasingly devastating wildfires in recent years consistent with the expected effects of climate change, such as the 2000 Cerro Grande Fire in Bandelier National Monument, which burned 47,650 acres and 200 structures in the town of Los Alamos and 100 structures on Los Alamos National Laboratories land,¹³⁸ the 2011 Los Conchas Fire in the Santa Fe National Forest (156,000 acres),¹³⁹ the 2012 Whitewater-Baldy Complex Fire in the Gila National Forest (297,845 acres),¹⁴⁰ and the 2012 Little Bear Fire in the White Mountain Wilderness Area (44,330 acres and 242 homes).¹⁴¹ Just last year, more than four months and \$300 million were necessary to contain the largest wildfire in New Mexico's recorded history.¹⁴² In addition to the effects of drought and fire, higher temperature itself is an independent cause of forest mortality that,

¹³⁴ A. Park Williams, *et al., Large Contribution From Anthropogenic Warming to an Emerging North American Megadrought, Science,* 17 Apr 2020, Vol 368, Issue 6488 pp. 314–318, *available at:* https://www.science.org/doi/abs/10.1126/science.aaz9600.

 ¹³⁵ See National Drought Mitigation Center, U.S. Drought Monitor, New Mexico, available at: https://droughtmonitor.unl.edu/CurrentMap/StateDroughtMonitor.aspx?NM.
 ¹³⁶ Id.

¹³⁷ See Texas Water Development Board, Elephant Butte Lake, *available at*: https://waterdatafortexas.org/reservoirs/individual/elephant-butte.

¹³⁸ Los Alamos National Laboratory, *Cerro Grande Fire Assessment Project: An Assessment of the Impact of the Cerro Grande Fire on Cultural Resources at Los Alamos National Laboratory, New Mexico* (Dec. 2002) at 3, *available at:*

https://www.lanl.gov/museum/exhibitions/_docs/cerro-grande-fire-assesmentLA-UR-02-5713.pdf.

¹³⁹ National Park Service, The Las Conches Fire, *available at*:

https://www.nps.gov/band/learn/nature/lasconchas.htm.

¹⁴⁰ Southwest Fire Science Consortium, 2012 Whitewater Baldy Fire: Gila National Forest, *available at:* http://swfireconsortium.org/wp-content/uploads/2012/10/FINAL-WB-fact-sheet.pdf.

¹⁴¹ See U.S. Dept. of Agriculture, *Little Bear Fire Summary Report, available at:* https://www.fs.usda.gov/nrs/pubs/rn/rn nrs178.pdf.

¹⁴² Susan Montoya Bryan, *Record-setting wildfire in New Mexico declared contained*, ASSOCIATED PRESS, Jun. 22, 2022, https://apnews.com/article/floods-wildfires-mountains-firesnew-mexico-1b4102ee2d1ab5c5a0af304df0cbf720.

according to scientists at Los Alamos National Laboratories, is expected to contribute to massive conifer mortality in the southwest by 2100.¹⁴³

New Mexico has also acted at the state level to address the causes of climate change. In 2019, New Mexico enacted the Energy Transition Act,¹⁴⁴ which set a statewide renewable energy standard of 50 percent by 2030 for New Mexico investor-owned utilities and rural electric cooperatives, with a goal of 80 percent by 2040. The Act additionally aims to achieve zerocarbon resource standards for investor-owned utilities by 2045 and rural electric cooperatives by 2050. Also in 2019, the New Mexico Interagency Climate Change Task Force issued its initial recommendations, which included strategies for emission reductions from all major sectors of the state's economy.¹⁴⁵ Among other things, the recommendations recognized the coordination between the state's Environment Department and Energy, Minerals, and Natural Resources Department to develop complementary methane regulations for the oil and gas industry in fulfillment of their respective duties to protect air quality and prevent waste.¹⁴⁶ Accordingly, in March 2021, after a two-year stakeholder engagement process, the New Mexico Oil Conservation Commission adopted natural gas waste reductions rules, requiring 98 percent capture of produced methane.¹⁴⁷ And, in July 2022, the New Mexico Environmental Improvement Board published ozone precursor rules for the oil and gas industry.¹⁴⁸ By targeting excessive ozone levels in oil and gas producing regions of the state, the rule is expected to reduce methane emissions by over 851 million pounds.¹⁴⁹

content/uploads/sites/2/OCDMethaneRuleReleaseMarch252021.pdf.

¹⁴³ Nathan Gabriel Mcdowell, et al., Multi-Scale Predictions Of Massive Conifer Mortality Due To Chronic Temperature Rise (Dec. 2015), available at:

https://www.osti.gov/pages/servlets/purl/1492529.

¹⁴⁴ NMSA 1978, §§ 62-18-1 – 23.

¹⁴⁵ New Mexico Climate Strategy Initial Recommendations and Status Update (2019), available at: https://www.climateaction.nm.gov/wp-

content/uploads/2021/07/NMClimateChange_2019.pdf.

¹⁴⁶ *Id.* at 13–15.

¹⁴⁷ See State of New Mexico, Energy, Minerals and Natural Resources Department, *Oil Conservation Commission Approves EMNRD's Final Natural Gas Waste Reduction Rules* (Mar. 25, 2021), *available at:* https://www.emnrd.nm.gov/officeofsecretary/wp-

¹⁴⁸ See New Mexico Environment Department, Ozone Precursor Rulemaking, available at: https://www.env.nm.gov/air-quality/ozone-draft-

rule/#:~:text=The%20New%20Mexico%20Environmental%20Improvement,and%20key%20doc uments%20and%20data; 20.2.50.1 NMAC – N, 08/05/2022, available at:

https://www.env.nm.gov/air-quality/wp-content/uploads/sites/2/2022/07/Oil-and-Gas-Sector-Ozone-Precursor-Polutants-Final-rule-20.2.50-NMAC-06Jul22.pdf.

¹⁴⁹ New Mexico Environment Department, *Environment Department Releases New Proposed Rule To Improve Air Quality In New Mexico's Most Ozone-Polluted Regions* (May 6, 2021) at 2, *available at:* https://www.env.nm.gov/wp-content/uploads/2021/05/2021-05-06-NMED-filesnew-ozone-rule-FINAL.pdf.

As noted above, Oregon has also experienced increasingly frequent and severe wildfires, with consequences for human health and the economy. *The New York Times* reported that in 2018, the Oregon Shakespeare Festival in Ashland estimated losses of \$2 million as a result of cancelled performances and reduced attendance due to wildfire smoke.¹⁵⁰ During the 2020 wildfire season, 62 percent of Oregon wineries reported not only unhealthy air that delayed harvest, but impacts such as ash on grape skins and reduced sunlight that affected the size of grape clusters. Eighteen percent of Oregon wineries reported smoke damage to their wines, with the majority of red wine grape varieties discarded by producers or not harvested.¹⁵¹

Oregon has also acted to address the causes of climate change. It has required its major private utilities to eliminate greenhouse gas emissions by 2040.¹⁵² And Oregon's Climate Protection Program requires dramatic reductions in greenhouse gas emissions from fossil fuels used throughout Oregon in transportation, residential, commercial and industrial settings.¹⁵³

The impacts of climate change are hardly limited to the undersigned States. As the BLM itself has recognized, "[v]irtually every community in the US is being impacted by climate change, and Federal programs have an obligation to be administered in a way that will not worsen and [instead,] help address these impacts."¹⁵⁴ Reducing coal consumption is one of the lowest-hanging fruits in these efforts to reduce GHG emissions, as it is one of the highest-emitting fuels still in use (releasing 2.21 pounds of CO₂ per kilowatt-hour of electricity generated).¹⁵⁵ In addition to the direct GHG emissions attributable to coal's combustion, the mining, processing, and transportation of coal are also responsible for significant emissions and energy demand. And while coal is an especially polluting form of energy even among other fossil fuels, the renewable energy sources which are being promoted by the States' clean energy policies emit significantly less or no GHGs altogether.

In sum, as part of its review, the BLM must consider the climate change impacts of continuing the federal coal leasing program as well as the States' efforts to mitigate these impacts and shift to a clean energy economy.

¹⁵¹ University of Oregon, Eugene, Institute for Policy Research and Engagement (IPRE), Impacts to Oregon's wine industry: Covid-19 and the 2020 wildfires (2021);

¹⁵⁰ The New York Times, Wildfire smoke disrupts Oregon Shakespeare Festival (Aug. 24, 2018); <u>https://www.nytimes.com/2018/08/24/theater/oregon-shakespeare-festival-wildfire-smoke.html</u>

https://industry.oregonwine.org/wp-content/uploads/sites/2/2020-Vineyard-and-Winery-Report-COVID-and-Wildfire-Impacts-09-07-21.pdf.

¹⁵² Or. Rev. Stat. 469A.410.

¹⁵³ Or. Admin. Rules, ch. 340, div. 271.

¹⁵⁴ Scoping Report, *supra* note 8, at 6-3.

¹⁵⁵ U.S. Energy Information Administration ("EIA"), *Frequently Asked Questions, "How much carbon dioxide is produced per kilowatt hour of U.S. electricity generation?"* (Dec. 15, 2020), *available at:* https://www.eia.gov/tools/faqs/faq.php?id=74&t=11.

II. The BLM Must Account for the Significant Environmental Justice Impacts of the Federal Coal Leasing Program.

All people deserve to live in a safe and healthy environment. All too often, however, our own nation's low-income communities, communities of color, and tribal and indigenous communities are denied this basic right, enduring disproportionate burdens of air pollution, climate change harms, and other serious health and environmental issues. While there are numerous environmental impacts of the federal coal leasing program that the BLM must address in its review—including impacts to water quality, air quality, and wildlife¹⁵⁶—the States here specifically urge the BLM to consider the disproportionate impacts on environmental justice communities resulting from the federal coal leasing program.

As recognized in a recent EPA report, a growing body of literature has found climate is projected to have "disproportionate and unequal risks...on communities that are least able to anticipate, cope with, and recover from adverse impacts."¹⁵⁷ Among other findings, EPA determined that environmental justice communities are significantly more likely to be located in areas with the highest projected losses of labor hours due to temperature increases, areas with the highest projected increases in childhood asthma due to climate-driven increases in particulate air pollution, and areas where the highest percentage of land is projected to be inundated due to sea level rise.¹⁵⁸

For example, Black and African American individuals are 40 percent more likely than non-black and non-African American individuals to live in areas with the highest projected increases in mortality rates due to climate-driven changes in extreme temperatures, and 34 percent more likely to live in areas with projected increased in childhood asthma.¹⁵⁹ Similarly, EPA found that Hispanic and Latino individuals are 43 percent more likely than non-Hispanic and non-Latino individuals to live in areas with the highest projected labor hour losses in weather-exposed industries due to high temperatures driven by climate change.¹⁶⁰ And American Indian and Alaska Native individuals are 48 percent more likely than non-American Indian and non-Alaska Native individuals to live in areas where the highest percentage of land is projected to be inundated due to sea level rise.¹⁶¹

¹⁵⁶ BLM itself recognized in the Scoping Report that several impacts of the federal coal leasing program have never been adequately considered, including harm to public lands and wildlife from coal mining; air quality impacts from coal transport and combustion; and impacts from the disposal of coal ash, which contains hazardous constituents. *See* Scoping Report, *supra* note 8, at 5-46-5-52; *see also id.* at 6-4 ("there is a need for program reform to better protect the nation's other natural resources (*e.g.*, air, water, and wildlife)").

¹⁵⁷ EPA Climate Report, *supra* note 11.

¹⁵⁸ Id.

¹⁵⁹ Id.

¹⁶⁰ *Id*.

¹⁶¹ *Id*.

Perhaps even more significant than the climate change impacts on environmental justice communities are the localized impacts associated with the transport and export of coal. As domestic demand for coal decreases,¹⁶² the coal industry has increasingly turned to exports as a possible lifeline for the industry.¹⁶³ In recent years the percentage of U.S. coal exported has nearly doubled,¹⁶⁴ contributing to the millions of tons of coal moved each year across areas of the western U.S. that are surrounded by low-income and minority communities already disproportionately impacted by environmental pollution. A 2015 study published in the journal Atmospheric Pollution Research found that the passage of a diesel-powered, open-top coal train resulted in nearly twice as much particulate matter emissions as a diesel-powered freight train.¹⁶⁵ And according to a 2017 report by the Bay Area Air Quality Management District ("BAAQMD"), particulate matter emissions from the storage and handling of bulk materials such as coal present an environmental and public health concern because small dust particles released from such activities cause or contribute to a wide variety of serious health problems, including asthma, bronchitis, cardio-vascular diseases, and cancer.¹⁶⁶

A University of California, Davis ("UC Davis"), study released just this year confirms these devastating and disproportionate effects along California's coal transit routes in particular, finding that coal transport, storage and handling significantly increased community exposure to ambient PM_{2.5} levels in Richmond, a Bay Area hub of coal exports.¹⁶⁷ Moreover, the impacts of this exposure were found to be "borne disproportionately by the most vulnerable, including infants, children and the elderly, people of color, those with low incomes, and those with underlying health conditions."¹⁶⁸

To compensate for declining domestic need and meet increased export demands, there has also been a corresponding push to build more export facilities like those in Richmond to send further coal overseas, including from existing and proposed new ports in California and Washington. In recent years, local leaders have grown increasingly concerned with the environmental hazards associated with such facilities. In February 2014, the Board of Port

¹⁶² See, e.g., Charles Hauenstein & Franziska Holz, *The U.S. Coal Sector between Shale Gas and Renewables: Last Resort Coal Exports*?, 149 Energy Pol'y, Feb. 2021, at 2.

¹⁶³ See, e.g., Letter from Deck Slone, Nat'l Coal Council Chair, to Rick Perry, Sec'y of Energy (October 22, 2018) (letter at 6), http://www.nationalcoalcouncil.org/studies/2018/NCC-US-Coal-Exports-2018.pdf.

¹⁶⁴ See U.S. ENERGY INFO. ADMIN., supra note 18.

¹⁶⁵ Jaffe, Daniel, et al., Diesel particulate matter and coal dust from trains in the Columbia River Gorge, Washington State, USA, Atmospheric Pollution Research 6 (2015) 946-952.

¹⁶⁶ BAAQMD, *Rule Development Workshop Report: Particulate Matter* (Jan. 27, 2017), *available at:* https://www.baaqmd.gov/~/media/dotgov/files/rules/archive-2018-regulation-6/bundled-documents/20170127_wsr_reg6combined-pdf.

 ¹⁶⁷ See, e.g., BART OSTRO ET AL., ASSESSMENT OF COAL AND PETROLEUM COKE POLLUTION at v (2023), available at: https://ucdavis.app.box.com/s/sh55sgeix0r39k07zfsai1tcamux8qpw.
 ¹⁶⁸ Id.

Commissioners of the Port of Oakland unanimously rejected a proposal for a new coal export terminal, citing environmental and climate concerns.¹⁶⁹ In 2016, Oakland city officials considered a proposal for a coal export terminal in West Oakland.¹⁷⁰ A health and safety analysis concluded that there was "substantial evidence" that such a plan would "endanger the health and safety of people working at or visiting the project site, as well as those living in, recreating in or visiting adjacent communities."¹⁷¹ The report also emphasized that the communities near the proposed terminal site already suffer from elevated levels of pollution, including PM_{2.5}, and are particularly susceptible to the effects of air pollution because of their age, socioeconomic status, other environmental health burdens, and pre-existing health conditions.¹⁷² Given these impacts, Oakland enacted an ordinance that categorically banned facilities in the city from maintaining, loading, handling, or storing coal, which was ultimately overturned following a legal challenge.¹⁷³ While the city and the terminal's developers engaged in subsequent settlement discussions, the developers pulled out of talks and litigation resumed last year.¹⁷⁴

In 2017, the Washington State Department of Ecology denied a water quality permit for the Millennium Bulk Terminals proposed coal export terminal in Longview, Washington, along the Columbia River. The proposed project would have received coal from the Powder River Basin in Montana and Wyoming and the Uinta Basin in Utah and Colorado. The Department of Ecology found that the proposed project would cause irreparable and unavoidable harm to the Columbia River. In addition to water quality impacts, the proposed project would have impaired tribal access to protected fishing sites. The Environmental Impact Statement for the project further detailed unavoidable significant environmental and public health impacts, including increased cancer risk rates in Cowlitz County from the emission of diesel particulates, measurable adverse noise impacts at several hundred residences in the vicinity, and disproportionate impacts on low income and minority populations in Cowlitz County.

¹⁶⁹ See Meeting of the Board of Port Commissioners, Port of Oakland, Agenda (Feb. 27, 2014), *available beginning p. 389 at:* https://www.portofoakland.com/wp-content/uploads/2015/10/2014 agenda.pdf.

¹⁷⁰ CBS SF Bay Area, *Despite a Coal Ban in Oakland, Developer Leverages Proposed Facility Against City* (July 8, 2021), *available at:* https://sanfrancisco.cbslocal.com/2021/07/08/despite-a-coal-ban-in-oakland-developer-leverages-proposed-facility-against-city/.

¹⁷¹ Chafe, Zoe, Analysis of Health Impacts and Safety Risks and Other Issues/Concerns Related to the Transport, Handling, Transloading, and Storage of Coal and/or Petroleum Coke (Petcoke) in Oakland and at the Proposed Oakland Bulk & Oversized Terminal (June 22, 2016), available at: https://cao-94612.s3.amazonaws.com/documents/Analysis-of-Health-Impacts-and-Saftey-Risks...-By-Zoe-Chafe-for-Dan-Kalb.pdf.

¹⁷² *Id*.

¹⁷³ See Oakland Bulk & Oversized Terminal v. City of Oakland, 960 F.3d 603 (9th Cir. 2020).

¹⁷⁴ See David DeBolt, Another twist in the coal wars: West Oakland terminal developer walks away from settlement deal, THE OAKLANDSIDE (Jul. 22, 2022), available at:

https://oaklandside.org/2022/07/22/another-twist-in-the-coal-wars-west-oakland-terminal-developer-walks-away-from-settlement-deal/.

In 2020, Richmond followed Oakland's lead and enacted a similar ban on coal-transfer facilities within city limits, citing environmental justice concerns at yet another major California port.¹⁷⁵ Scientists studying the impacts of coal operations at the Levin-Richmond Terminal found that coal storage and handling increased PM_{2.5} pollution in surrounding neighborhoods,¹⁷⁶ results which were recently corroborated by the 2023 UC Davis study as discussed above.¹⁷⁷ Furthermore, the study determined that many of Richmond's residents were in higher-risk groups: those with fewer economic resources; the elderly; infants and young children; and those with chronic diseases.¹⁷⁸ In fact, the incidence of asthma attacks in one of Richmond's downtown census tracts was higher than 99 percent of all California census tracts.¹⁷⁹ While last year the city of Richmond negotiated a settlement with the terminal's operators to phase out the handling of coal at the facility by the end of 2026, the 2023 UC Davis study underscores that the ongoing extraction of coal elsewhere in the country will continue to exact an enduring toll locally before then. More broadly, it is states such as Washington and California that most suffer the environmental and health consequences of increased interstate coal transport despite having greatly reduced, or ceased entirely, their own coal production.

In short, the fact that coal consumption may be *decreasing* in the United States does very little to diminish the harmful impacts of the federal coal leasing program, given that the GHG emissions of coal consumption are the same, regardless of where the coal is burned, and exporting more coal overseas actually *increases* the pollution burden on already impacted communities in the United States. As the BLM reviews the federal coal leasing program, it must account for the multi-faceted harms that such activities have on our country's already vulnerable communities.

III. The BLM Must Ensure that the American Public is Receiving a Fair Return from the Sale of Federal Coal Resources.

As discussed above, changes in the coal industry and a grossly outdated environmental review have resulted in a federal coal leasing program that fails to properly account for its negative impacts or achieve a fair return for the American public. Since 1990, almost all federal coal leasing has been the result of industry application.¹⁸⁰ Reliance on leasing by application

¹⁷⁵ Sciacca, Annie, *Richmond slammed with multiple federal, state lawsuits over ban on coal and petcoke*, The Mercury News (Mar. 13, 2020), *available at:*

https://www.mercurynews.com/2020/03/13/richmond-slammed-with-multiple-federal-state-lawsuits-over-ban-on-coal-and-petcoke/.

¹⁷⁶ Brown, Claire, et al., Health, Economics and Science Analysis of Coal Operations at Levin-Richmond Terminal (Nov. 2019), available at:

https://ncir.weebly.com/uploads/4/8/1/7/48171975/analysis_of_lrt_coal_operations_nov2019.pdf.

¹⁷⁷ See Ostro et al., supra note 114.

¹⁷⁸ Id.

¹⁷⁹ Id.

¹⁸⁰ Scoping Report, *supra* note 8, at 5-7.

substantially impairs the efficacy of competitive lease auctions.¹⁸¹ Existing lease holders have a financial incentive to submit applications that propose tracts adjacent to their existing leases.¹⁸² Since coal mining operations are capital-intensive and mining equipment is logistically difficult to move, bidders closest to a proposed lease can generally outbid all other parties. The result is that leasing by application auctions frequently have only one bidder and are effectively noncompetitive, which in turn ensures that the public will not receive fair value on these leases.¹⁸³

Moreover, the BLM's failure to properly account for the significant environmental impacts of federal coal leasing, and the resulting costs of both mitigating and adapting to those impacts, has led to a program that neither provides a fair return from the sale of these resources nor serves the public interest. This disparity is readily apparent from climate change impacts alone. In February 2021, the U.S. Government's Interagency Working Group on the Social Cost of Greenhouse Gases ("Working Group") adopted an interim measure of the social cost of carbon—the monetary value of net harm to society associated with adding GHGs to the atmosphere—at \$51 per ton emitted (using a 3 percent discount rate),¹⁸⁴ a figure that has since been employed by the Biden Administration.¹⁸⁵ And, notably, at the end of last year the EPA proposed a nearly fourfold increase in the social cost of carbon to \$190 per ton emitted.¹⁸⁶ Yet under the current system of determining the "fair market value" of coal leases, the BLM recoups approximately \$2 per ton of coal.¹⁸⁷

At first glance, one might conclude that the BLM is collecting \$2 per ton of coal when coal production actually imposes harms that cost society \$51—or even \$190—per ton of coal produced, but even those figures significantly underestimate the costs, because burning a ton of

royalty collection of \$1.70 per ton of coal from 2008 to 2012), available at:

¹⁸¹ *Id.* at 5-8.

¹⁸² *Id.* at 5-13.

¹⁸³ *Id*.

¹⁸⁴ IWG, Technical Support Document: Social Cost of Carbon, Methane, and Nitrous Oxide -Interim Estimates under Executive Order 13990 (Feb. 2021), *available at:*

https://www.whitehouse.gov/wp-content/uploads/2021/02/TechnicalSupportDocument_SocialCostofCarbonMethaneNitrousOxide.pdf.

¹⁸⁵ See, e.g., Elijah Asdourian & David Wessel, *What is the social cost of carbon?*, BROOKINGS INST. (Mar. 14, 2023), *available at:* https://www.brookings.edu/2023/03/14/what-is-the-social-cost-of-carbon/.

 ¹⁸⁶ EPA-HQ-OAR-2021-0317-1549, External Review Draft of Report on the Social Cost of Greenhouse Gases: Estimates Incorporating Recent Scientific Advances (Sept. 2022), at 3.
 ¹⁸⁷ Executive Office of the President of the United States, The Economics of Coal Leasing on Federal Lands: Ensuring a Fair Return to Taxpayers (June 2016) at 8 (finding an average

https://obamawhitehouse.archives.gov/sites/default/files/page/files/20160622_cea_coal_leasing.p df; *see* Scoping Report, *supra* note 8, at ES-1 (noting that during the past decade, BLM-administered leases have produced over 4 billion tons of coal and generated \$10 billion in federal revenue).

coal emits more than a ton of CO_{2.} Specifically, for Powder River Basin coal, which accounts for over 85 percent of all federal coal production, the BLM assumes an average heat rate of 8,600 Btu per pound of coal, and an emission factor of 212.7 pounds of CO₂ per million Btu. This yields an emission factor of 1.83 tons CO₂ per ton of coal. Other estimates assert that the complete combustion of one ton of coal generates 2.86 tons of carbon dioxide.¹⁸⁸ Thus, even under a conservative estimate of the social cost of carbon at \$51 per ton, the BLM should be recouping *at minimum* \$93.33 to \$145.86 per ton of coal leased (46 to 72 times the current rate of \$2 per ton), based on the impacts of carbon emissions alone. Under the EPA's newest estimate, the social cost of coal production skyrockets to between \$348 and \$543 per ton of coal leased. And it is worth noting that neither the interim social cost of GHGs formulated by the Working Group nor EPA's proposed revised figure account for major impacts of climate change—including that they do not attempt to estimate damage caused by the increased frequency and intensity of wildfires, or damage to culturally and historically significant resources, among other climate-driven harms.¹⁸⁹

Even without accounting for the immense externalities of coal production, coal is now almost universally a more expensive energy source than renewable alternatives such as solar and wind. For example, a 2023 report found that it is now more expensive to operate 99 percent of all coal-fired plants in the U.S. than to replace them entirely with new renewable projects.¹⁹⁰

¹⁸⁸ Hong, B.D., and E. R. Slatick, Carbon Dioxide Emission Factors for Coal, EIA Quarterly Coal Report, January-April 1994 (Aug. 1994), *available at:*

https://www.eia.gov/coal/production/quarterly/co2_article/co2.html.

¹⁸⁹ See. *e.g.*, Peter Howard, *Flammable Planet: Wildfires and the Social Cost of Carbon* (2014), available at

https://costofcarbon.org/files/Flammable_Planet__Wildfires_and_Social_Cost_of_Carbon.pdf (on wildfires) and Nat'l Academy of Sciences, Valuing Climate Damages: Updating Estimation of the Social Cost of Carbon Dioxide, at 152-53 (2017), noting that climate change causes "loss of goods and services that are not traded in markets and so cannot be valued using market prices," such as "loss of cultural heritage, historical monuments, and favored landscapes." The Union of Concerned Scientists has identified many historic sites and landmarks at risk from climate change, including Boston's Faneuil Hall and the Statue of Liberty. Union of Concerned Scientists, National Landmarks at Risk: How Rising Seas, Floods, and Wildfires Are Threatening the United States' Most Cherished Historic Sites, at 4–32, 36–40, 44 (2014). And climate change in many cases threatens the cultural traditions of Indigenous communities. See e.g., Carson Viles, Tribal Climate Change Profile: First Foods and Climate Change (Dec. 2011) ("Because of the vital role that first foods play in the physical, mental, and spiritual health of native communities, impacts from climate change on first foods may negatively affect tribal culture and livelihood.") available at http://www7.nau.edu/itep/main/tcc/docs/tribes/tribes_FirstFoodsCC.pdf.

¹⁹⁰ MICHELLE SOLOMON ET AL., ENERGY INNOVATION, COAL COST CROSSOVER 3.0: LOCAL RENEWABLES PLUS STORAGE CREATE NEW OPPORTUNITIES FOR CUSTOMER SAVINGS AND COMMUNITY REINVESTMENT at 2, *available at:* https://energyinnovation.org/wp-content/uploads/2023/01/Coal-Cost-Crossover-3.0.pdf.

Moreover, for more than three quarters of U.S. coal capacity, a renewable alternative would be at least a third cheaper than the coal it could replace.¹⁹¹ While coal has struggled to keep up as a cost effective fuel source in the last decade, the degree and scope of underperformance relative to renewable alternatives has only accelerated since 2021.¹⁹² Since being enacted last year, Inflation Reduction Act has further driven down the cost of renewables production such that only a single coal plant in the United States can now be operated more cheaply than a renewable alternative.¹⁹³ Significantly, this sole advantage disappears as soon as even the most conservative estimate of coal production's external (i.e., social) costs is incorporated.¹⁹⁴

For these reasons, the continued leasing of public lands for coal production is not "in the public interest" under the MLA, where renewable alternatives are both more cost effective on their face and impose few of coal's immense environmental and health costs.¹⁹⁵ Continued coal production would also be fundamentally out of step with the FLPMA's requirement that BLM manage public lands in a way "that will best meet the present and future needs of the American people.¹⁹⁶

In the 2017 Scoping Report, the BLM identified several potential ways for the federal coal leasing program to better ensure a fair return from the sale of public coal resources, and to reduce impacts from climate change and other environmental issues.¹⁹⁷ For example, with regard to greenhouse gas emissions, the BLM identified potential alternatives such as: (1) accounting for carbon-based externalities through a royalty rate increase or royalty adder; (2) adopting requirements for the use of compensatory mitigation; (3) establishing a carbon budget to guide federal coal leasing in an effort to limit the amount of greenhouse gas emissions associated with federal coal production; (4) considering opportunities to address methane emissions associated with coal mining operations; and (5) fully analyzing a no new leasing alternative.¹⁹⁸

As part of the BLM's scoping efforts today, and consistent with the August 2022 District Court order requiring the BLM to "consider the full scope of the Zinke Order's effect on all then-

¹⁹¹ Id.

¹⁹² See, e.g., ERIC GIMON ET AL., ENERGY INNOVATION, COAL COST CROSSOVER 2.0 at 1, *available at:* https://energyinnovation.org/wp-content/uploads/2021/05/Coal-Cost-Crossover-2.0.pdf (noting that 80% of U.S. coal capacity in 2020 was uneconomic relative to renewable alternatives or already slated for retirement within the next five years, compared to 99% today as reported by SOLOMON ET AL., *supra* note 135, at 2).

¹⁹³ See SOLOMON ET AL., supra note 135, at 2.

¹⁹⁴ See GIMON ET AL., supra note 137, at 14 (remarking that even the most conservative estimate of the external costs of U.S. coal generation of \$30 per MWh is sufficient to eliminate any remaining economic advantage vis à vis renewables).

¹⁹⁵ 30 U.S.C. § 201(a)(1).

¹⁹⁶ 43 U.S.C. § 1702(c).

¹⁹⁷ Scoping Report, *supra* note 8, at 6-1 - 6-32.

¹⁹⁸ *Id.* at 6-13 - 6-20.

pending lease applications *and other connected, cumulative, or similar actions*,"¹⁹⁹ the States urge the BLM to further analyze such alternatives in light of current information regarding the full impacts and costs of the federal coal leasing program, including the costs of carbon pollution discussed above and any other environmental harms arising from the program, and any non-environmental costs to the nation. (These are reasonable alternatives that are technically feasible under the new NEPA statutory provisions at 42 U.S.C. § 4332(2)(C)(iii).) In addition, the States urge the BLM to look at steps necessary to ensure that any return on lands leased for coal production also include an accurate valuation for the coal removed or other activities undertaken, through reform of the selection and bidding process and any other appropriate changes, so that the leases do not provide an unfair subsidy for coal extraction. The States also call on the BLM to consider the much diminished economic viability of coal as an energy source, especially where an ever greater percentage of coal extracted does not provide for U.S. energy security needs but is instead exported at the expense of environmental justice communities situated along its passage. In sum, the BLM should work to ensure that any future leasing provides a fair return to the nation and serves the public interest.

Finally, the States urge the BLM to consider how it might recoup or mitigate the actual costs of the coal leasing program with respect to existing leases. First, the BLM should incorporate the social cost of carbon and social cost of methane into the royalty rate for existing federal coal leases as they come up for 10-year renewals, and second, the BLM should deny all pending and future requests for royalty relief as improper fossil fuel subsidies. The BLM should also consider whether it must cancel all leases illegally approved under the Trump Administration and invalidated by federal courts, including the Alton coal lease in Utah.

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¹⁹⁹ *Citizens for Clean Energy II*, 621 F. Supp. 3d at 1175 (referencing 40 C.F.R. § 1508.25) (emphasis added). *See also id.*, at 1173 (finding that merely considering greenhouse gas emissions, socioeconomic impacts, and water resource impacts was insufficient in BLM's Draft Environmental Assessment).

CONCLUSION

The States appreciate the opportunity to comment on the scope and content of the BLM's EIS analyzing the potential environment effects from maintaining or revoking Secretary Jewell's coal leasing moratorium. This work is sorely needed to advance the Biden administration's goals of confronting the climate crisis and advancing environmental justice.²⁰⁰ The States look forward to the next steps in the review process and stand ready to assist with this effort.

Sincerely,

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²⁰⁰ See, e.g., Executive Order 13990.

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