COLUMBIA LAW SCHOOL

SABIN CENTER FOR CLIMATE CHANGE LAW

June 28, 2017

Scott G. Armentrout,
USFS Forest Supervisor
2250 Hwy. 50
Delta, CO 81416

Re: Supplemental Draft Environmental Impact Statement, Federal Coal Lease Modifications COC-1362 & COC-67232

Dear Mr. Armentrout:

The Sabin Center for Climate Change Law at Columbia Law School submits these comments on the supplemental draft environmental impact statement (SDEIS) for Federal Coal Lease Modifications COC-1262 & COC-67232 at the West Elk Mine near Somerset, Colorado. Our recommendations to the U.S. Forest Service (USFS) can be summarized as follows:

- USFS should revisit its conclusions about the magnitude of the greenhouse gas emissions that would be generated as a result of the proposed lease modifications, and in particular, its conclusion that "there is no credible reason to deny the modification on the basis of climate change."[1] USFS's analysis of direct and indirect emissions provides a sufficient basis for concluding that the lease modifications will make a meaningful contribution to global climate change.
- USFS should use the social cost of carbon, methane, and nitrous oxide to disclose the potential economic consequences associated with the emissions that would be generated as a result of the lease modifications.
- USFS should acknowledge and quantify the direct greenhouse gas emissions[2] that would be generated as a result of prolonging mining activities at the West Elk Mine under the proposed lease modifications.

I. USFS Should Acknowledge that the Proposed Lease Modifications Would Have a Meaningful Effect on Global Climate Change

USFS's analysis indicates that the mining and combustion of the coal generated by the lease modifications would generate substantial quantities of greenhouse gas emissions. Specifically:

[1] SDEIS, Federal Coal Lease Modifications COC-1362 & COC-67232 (2017) at 129.
[2] We refer to emissions from mining activities as "direct emissions" (in contrast to indirect emissions from coal combustion, which USFS has quantified in the SDEIS).

- Alternative 3 would permit the production of approximately 17.6 million tons of coal and would result in an increase of approximately 410 million metric tons (MMT) CO_2e, as compared with the no action alterative.
- Alternative 4 would permit production of approximately 16.8 million tons of coal and would result in an increase of approximately 390 MMT CO_2e, as compared with the no action alternative.[3]

As a point of reference, these figures are approximately 6.2% (Alternative 3) and 6% (Alternative 4) of the total CO_2e emissions generated in the United States in 2015.[4] There is no question that this represents a meaningful contribution to nationwide greenhouse gas emissions.

To illustrate this point: EPA has issued endangerment findings for sectors where the annual emissions were smaller than what is at stake here, including: (i) aviation (3% of U.S. emissions),[5] and (ii) the oil and gas sector (3% of U.S. emissions).[6] If those thresholds are sufficient for determining that the emissions endanger public health and welfare and should be regulated nationally, then clearly the emissions impact of the coal lease modifications is sufficiently large to justify a conclusion that USFS should not approve this action.

Finally, we note USFS's conclusion that:

> "Absent policy, or a demand side shift away from coal, there are still far too many suppliers that could substitute their coal for West Elk's in the market place regardless of the governments influence with this decision. And, thus, at this time there is no credible reason to deny the modification on the basis of climate change."[7]

USFS's assumption that the coal mined from West Elk will be substituted by other sources is unsupported by the analysis in the EIS. We urge USFS to drop this conclusory statement.

II. USFS Should Quantify the Economic Impacts of the Emissions

USFS argues that it cannot fully evaluate the implications of the proposed action's emissions contribution because "[s]tandardized protocols designed to measure factors that may contribute to climate change at the project scale, and to quantify climatic impacts, are presently unavailable."[8] This is not accurate: metrics do exist for assigning monetary value to the impact of each ton of carbon dioxide, methane, and nitrous oxide generated as a result of the proposed

[3] To generate these figures, we calculated direct emissions (from mining) by multiplying the baseline annual emissions in Table 3-7 of the SDEIS by 2.7 years (the additional duration of mining under the two alternatives) and then added this to the anticipated increase in indirect emissions from combustion.
[4] In 2015, total gross U.S. greenhouse gas emissions were 6,586.7 MMT CO2e. EPA, *Inventory of Greenhouse Gas Emissions and Sinks: 1990-2015* (2017) at ES-4.
[5] Finding that Greenhouse Gas Emissions From Aircraft Cause or Contribute to Air Pollution That May Reasonably Be Anticipated to Endanger Public Health and Welfare; Final Rule, 81 Fed. Reg. 54422 (Aug. 15, 2016).
[6] Oil and Natural Gas Sector: Emission Standards for New, Reconstructed, and Modified Sources, 81 Fed. Reg. 35824, 35839-40 (June 3, 2016).
[7] SDEIS at 129.
[8] SDEIS at 123.

action,[9] and this monetary value can serve as a proxy for measuring the "climatic impacts" of those emissions.

USFS states that it did not use these tools to monetize the emissions impacts because the tool was designed to be used in a regulatory context.[10] But the fact that these tools were developed to support regulation does not in any way diminish their value in the context of an environmental review – to the contrary, assigning a cost to emissions is an excellent way to help decision-makers and the public better understand the magnitude of and potential harms associated with those emissions. Indeed, for many readers, monetary values are a more familiar metric than tonnage estimates of greenhouse gases. For these reasons, we recommend that USFS use the social costs of carbon dioxide, methane, and nitrous oxide to provide a monetary estimate of the impacts of the emissions generated as a result of the proposed lease modifications.

USFS also states that it did not monetize emissions impacts because it did not conduct a full cost-benefits analysis for the lease modifications. While it is true that USFS did not monetize all costs and benefits, it did estimate the monetary value of the coal that would be produced and the income generated for laborers (which included direct, indirect, and induced impacts on production and labor income).[11] USFS thus assigned a monetary value to the two most significant benefits of the lease modifications, but not the cost.

In *High Country Conservation Advocates v. USFS*, the very court that initially reviewed and remanded this EIS made clear that such an unbalanced assessment of benefits (without costs) is arbitrary and capricious and runs afoul of the agency's obligation to present a balanced impact assessment to decision-makers and the public. It explained:

> "Even though NEPA does not require a cost-benefit analysis, it was nonetheless arbitrary and capricious to quantify the benefits of the lease modifications and then explain that a similar analysis of the costs was impossible when such an analysis was in fact possible and was included in an earlier draft EIS."[12]

Similarly, in *Center for Biological Diversity v. NHTSA*, the 9th Circuit Court of Appeals held that it was arbitrary and capricious for an agency to ignore the impacts of GHG emissions in a regulatory impact analysis, noting that an agency "cannot put a thumb on the scale by undervaluing the benefits and overvaluing the costs of more stringent standards."[13]

Finally, it is worth noting that the utilization of the social cost of carbon, methane, and nitrous oxide in this context is consistent with the guidelines set forth in the Office of Management and

[9] These metrics include the social cost of carbon, the social cost of methane, and the social cost of nitrous oxide. *See* Interagency Working Group on the Social Cost of Greenhouse Gases, *Technical Support Document: Technical Update of the Social Cost of Carbon for Regulatory Impact Analysis Under Executive Order 12866* (May 2013, Revised August 2016); Interagency Working Group on the Social Cost of Greenhouse Gases, *Addendum to Technical Support Document on Social Cost of Carbon for Regulatory Impact Analysis Under Executive Order 12866: Application of the Methodology to Estimate the Social Cost of Methane and the Social Cost of Nitrous Oxide* (Aug. 2016).
[10] Id. at 122.
[11] SDEIS at 272.
[12] High Country Conservation Advocates v. United States Forest Serv., 52 F. Supp. 3d 1174, 1191 (D. Colo. 2014).
[13] Ctr. for Biological Diversity v. Nat'l Highway Traffic Safety Admin., 538 F.3d 1172, 1198 (9th Cir. 2008).

Budget (OMB) Circular A-4, which instructs agencies to account for both costs and benefits and to account for global impacts when evaluating regulations "that are likely to have effects beyond the borders of the United States."[14] President Trump has directed agencies to refer to OMB Circular A-4 when evaluating the greenhouse gas emissions impacts from regulations.[15] There is no reason that USFS should not adhere to these guidelines when evaluating the impacts of this action.

III. USFS Should Acknowledge and Quantify the Direct Emissions Generated as a Result of Prolonging Mining Activities at the West Elk Mine

The two proposals for lease modifications under consideration in this EIS (Alternatives 3 and 4) would both increase the duration of mining activities by 2.7 years as compared with the "no action" alternative (Alternative 1). In the "indirect emissions" section of the SDEIS, USFS estimates the amount of additional coal that would be produced due to this extension as well as the indirect emissions that would be generated from the combustion of that coal. However, in the "direct emissions" section, USFS does not quantify the increase in mining emissions that would occur as a result of the extension. Rather, USFS asserts that "all of the [direct] air quality impacts associated" with Alternatives 3 and 4 "would be identical to those disclosed in Alternative 1" because they represent a continuation of existing activity and "will not increase the intensity of operations above currently evaluated levels."[16] As a result, USFS concludes that "GHG emissions from production at West Elk Mine will not contribute to a measurable, if any, increase on a yearly basis from current levels [of greenhouse gas emissions] because this proposal would extend mining acres not increase the rate of coal mined."[17]

This is the wrong way to go about analyzing greenhouse gas emissions. As USFS acknowledges elsewhere in the SDEIS:

> "A growing body of analysis on coupled climate-carbon models have shown temperature is closely related to the total amount of CO_2 emissions released over time, where the cumulative emissions (i.e. the area under the curve), rather than the timing or shape of the emissions curve is more important for peak warming estimates."[18]

An increase in the duration of mining activities will result in an increase in greenhouse gas emissions over time, thus contributing to the cumulative emissions that cause global climate change. USFS should thus quantify the increase in direct emissions from mining in the final EIS. This recommendation is consistent with past cases rejecting the idea that an action which prolongs an activity does not generate new impacts if there is no change in the rate of the activity.[19]

---

[14] OMB Circular A-4 (2003) at 5.
[15] Executive Order 13783: Promoting Energy Independence and Economic Growth (2017).
[16] SDEIS at 110.
[17] SDEIS at 123.
[18] SDEIS at 128.
[19] *See* Dine Citizens Against Ruining Our Env't v. United States Office of Surface Mining Reclamation & Enf't, 82 F. Supp. 3d 1201, 1214 (D. Colo. 2015), appeal dismissed (Aug. 18, 2015) (rejecting OSM's finding that the approval of a coal lease modification that would expand the life of a mine would not result in additional combustion impacts because there was no increase in the rate of coal production); S. Fork Band Council Of W. Shoshone Of

* * * * *

We hope that you will give due consideration to these comments and to the question of whether the proposed lease modifications should be granted in light of the magnitude of the emissions that would be generated from the ongoing production and combustion of coal from the West Elk Mine. If you have any questions, please do not hesitate to contact us.

Sincerely,

Jessica Wentz
Staff Attorney
Sabin Center for Climate Change Law
Columbia Law School
707-545-2904 ex. 19
jessica.wentz@law.columbia.edu

Nevada v. U.S. Dep't of Interior, 588 F.3d 718, 725 (9th Cir. 2009) (rejecting BLM's finding that proposal which would extend life of gold mine would not cause an increase in air quality impacts from processing and transporting gold because there was no increase in the rate of gold production).