September 25, 2020

To: Farmington Field Office, Bureau of Land Management; Navajo Regional Office, Bureau of Indian Affairs

Subject: Comments on Environmental-Justice Assessment in the Farmington Mancos-Gallup Draft Resource Management Plan Amendment and Environmental Impact Statement

The Institute for Policy Integrity at New York University School of Law (“Policy Integrity”) respectfully submits comments on the failure of the Bureau of Land Management and the Bureau of Indian Affairs (collectively, the “agencies”) to assess the disparate impacts of climate change on minority and low-income communities in its environmental justice analysis in the Farmington Mancos-Gallup Draft Resource Management Plan Amendment and Environmental Impact Statement (“DEIS”).

Policy Integrity is a non-partisan think tank dedicated to improving the quality of government decisionmaking through advocacy and scholarship in the fields of administrative law, economics, and public policy. Policy Integrity regularly submits comments to federal agencies on the consideration of greenhouse gas emissions under the National Environmental Policy Act (“NEPA”).

In the DEIS, the agencies forecast that the region will produce more than 300 million metric tons of cumulative greenhouse gas emissions under their preferred alternative—an enormous amount that will substantially exacerbate adverse climate impacts. As Policy Integrity explains in separate comments submitted jointly with several other groups, the agencies fail to meaningfully assess the severity of the real-world climate damages—such as sea-level rise, property damage, and human health impacts—that those emissions will produce. In addition, as detailed below, the agencies fail to assess the impacts on minority

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

2 Policy Integrity is also submitting joint comments with several other organizations on the agencies’ failure to meaningfully consider or monetize greenhouse gas emissions.


4 DEIS tbl. 3-14. Alternative C is the preferred alternative. Id. at ES-8.
and low-income communities in their environmental-justice analysis, despite the fact that climate damages disproportionately befall such communities.

Should the agencies finalize the Environmental Impact Statement and the Resource Management Plan without meaningfully considering its impacts on environmental-justice communities, their determination will be arbitrary and capricious.

**Legal Requirements to Consider Disparate Impacts**

Executive Order 12,898 provides that each federal agency “[t]o the greatest extent practicable ... shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs.”

Pursuant to this objective, agencies should “use information assessing and comparing environmental and human health risks borne by populations identified by race, national origin, or income ... to determine whether their programs, policies, and activities have disproportionately high and adverse human health or environmental effects on minority populations and low-income populations.”

Agencies should evaluate a broad range of potential environmental-justice impacts as part of this analysis. A proper environmental-justice analysis should consider not only whether an action’s direct effects will be unequally distributed among the population, but also whether existing health and economic disparities will result in one group experiencing more harm from the same direct effects. And because an environmental-justice analysis is judicially reviewable under the Administrative Procedure Act’s “arbitrary and capricious”

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6 Id. § 3-302(a). See also Mid States Coal. for Progress v. Surface Transp. Bd., 345 F.3d 520, 541 (8th Cir. 2003) (“The purpose of an environmental justice analysis is to determine whether a project will have a disproportionately adverse effect on minority and low income populations. To accomplish this, an agency must compare the demographics of an affected population with demographics of a more general character (for instance, those of an entire state).”).

7 Council on Environmental Quality, *Environmental Justice: Guidance Under the National Environmental Policy Act* 8–9 (Dec. 10, 1997), https://www.epa.gov/sites/production/files/2015-02/documents/ej_guidance_nepa_ceq1297.pdf (hereinafter “CEQ Guidance”) (explaining that environmental-justice analyses under NEPA should be “highly sensitive to the history or circumstances of a particular community or population, the particular type of environmental or human health impact, and the nature of the proposed action itself” and noting that “[a]gencies should recognize the interrelated cultural, social, occupational, historical, or economic factors that may amplify the natural and physical environmental effects of the proposed agency action,” including “the physical sensitivity of the community or population to particular impacts; the effect of any disruption on the community structure associated with the proposed action; and the nature and degree of impact on the physical and social structure of the community”). See also Federal Interagency Working Group on Environmental Justice, *Promising Practices for EJ Methodologies in NEPA Reviews* 31 (2016), https://www.epa.gov/sites/production/files/2016-08/documents/nepa_promising_practices_document_2016.pdf (explaining that agencies should assess “chemical and non-chemical stressors that could potentially amplify impacts from the proposed action to the health of minority populations and low-income populations,” such as “health status (e.g. pre-existing health conditions) and past exposure histories, and social factors such as community property values, sources of income, level of income, and standard of living”).

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standard, analyses that do not adequately consider such impacts risk rendering agency action unlawful.

For instance, a failure to “properly consider the environmental-justice implications” of an agency proposal—such as offering “a bare-bones conclusion that [a minority or low-income population] would not be disproportionately harmed”—results in an agency action that is arbitrary and capricious. Agency action may also be unlawful if its environmental-justice analysis fails to incorporate “the best available science” and “the highest quality and most recent data available”—including “available evidence on factors that may make population groups of concern more vulnerable to adverse effects”—or fails to present the analysis in a fashion that provides sufficient information for the public to understand the rationale for its conclusion.

**Environmental-Justice Impacts of Climate Change**

Although climate change causes extensive harm to all segments of the population, certain demographic groups are “especially vulnerable” to its impacts “including the poor, the elderly, those already in poor health, the disabled, those living alone, and/or indigenous populations dependent on one or a few resources.” Climate change presents numerous different direct and indirect disparate effects on vulnerable communities, which agencies must evaluate when analyzing the environmental-justice impacts of any action that results in substantial greenhouse gas emissions that cause climate change.

Disparate impacts on marginalized communities from climate change include, among other harms, economic impacts from reduced crop yields and increased food and energy prices; human health impacts due to vulnerabilities to heat stress, respiratory illness, and other diseases that will be exacerbated by climate change; and resource and infrastructure impacts related to inequalities in adaptability to sea-level rise and extreme weather events.

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8 *Cmtys. Against Runway Expansion, Inc. v. FAA*, 355 F.3d 678, 689 (D.C. Cir. 2004); see also, e.g., *Coliseum Square Ass’n, Inc. v. Jackson*, 465 F.3d 215, 232 (5th Cir. 2006) (reviewing environmental justice analysis under Administrative Procedure Act).


11 CEQ Guidance at 15.

Economic Impacts

Direct economic effects on marginalized communities from climate change arise in part from the fact that “poor communities ... are more dependent on climate-sensitive resources such as local water and food supplies.”

For example, poor rural and tribal communities are largely dependent on agriculture. But climate change reduces agricultural productivity due to increased rates of crop failure; altered rates of pressure from pests, weeds, and diseases; drought and depletion of water resources; and intensified wildfires. As a result, poor agriculture-dependent communities are deeply vulnerable economically to the impacts of climate change.

While decreased agricultural yields directly diminish income in certain communities, their impact is felt in all low-income communities—farm-intensive or not—because they lead to increases in food prices. Increased food prices, though affecting the population at large, most substantially burden low-income individuals who have less

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13 Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units, 80 Fed. Reg. 64,662, 64,940 (Oct. 23, 2015) (“[P]oor communities can be especially vulnerable to climate change impacts because they tend to have more limited adaptive capacities and are more dependent on climate-sensitive resources such as local water and food supplies.”). See also Food & Agriculture Org. of the United Nations, The State of Food and Agriculture: Climate Change, Agriculture and Food Security (2016), available at http://www.fao.org/3/a-i6030e.pdf (detailing adverse impacts of climate change on agricultural communities).


16 Nicholas E. Korres et al., Cultivars to Face Climate Change Effects on Crops and Weeds: A Review. 36 Agronomy for Sustainable Dev. 11 (2016).


18 Climate Central, The Age of Western Wildfires (2012); Victoria Donovan et al., Surging Wildfire Activity in a Grassland Biome, 44 Geophysical Res. Letters 5986 (2017); See also Agriculture and Rural Communities at 401–02 (“Tribal communities are particularly vulnerable to wildfires, due to a lack of fire-fighting resources, insufficient experience internal staff, and remote locations. In additional, firefighting in many tribal communities requires coordination across fire-prone landscapes with various jurisdictional controls.”).

disposable income and for whom marginal price increases are therefore most difficult to afford.\textsuperscript{20}

Likewise, higher temperatures will result in higher electricity costs due to increased demand, reduced efficiency of power generation and delivery, and the need to build new generation capacity.\textsuperscript{21} By 2040, nationwide spending on residential and commercial electricity may rise by 18 percent or more.\textsuperscript{22} Nationwide, low-income multifamily households spend 2.3 times more of their income on energy costs, and the median energy burden for Black households is nearly 50 percent higher than for non-Hispanic white households.\textsuperscript{23} Already, two-thirds of low-income households in California are energy insecure.\textsuperscript{24} Thus, as with higher food prices, this across-the-board increase in energy prices will most severely and disproportionately afflict poor and minority communities.

\textit{Health Impacts}

In addition to suffering economically due to climate change, environmental-justice communities are also likely to suffer from severe and often fatal health impacts. While these health impacts too will affect all corners of society, they are expected to fall particularly hard on already-marginalized communities.

\begin{footnotesize}

\textsuperscript{21} Craig D. Zamuda et al., \textit{Energy Supply, Delivery, and Demand,} Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment, Vol. II (David R. Reidmiller et al. eds., 2018) (hereinafter “\textit{Energy Supply, Delivery, and Demand}”); Risky Business Project, \textit{The Economic Risks of Climate Change in the United States: A Climate Risk Assessment for the United States 35} (2014) (“Our research concludes that climate-driven changes in heating and cooling will likely increase annual residential and commercial energy costs nationally by $408 million to $12 billion over the next 5 to 25 years and $8.5 billion to $30 billion by the middle of the century.”).

\textsuperscript{22} Kate Larsen et al., \textit{Assessing the Effect of Rising Temperatures: The Cost of Climate Change to the U.S. Power Sector}, Rhodium Group 18 (2017) (“At the high end, under RCP 8.5, total expenditures will likely grow 6-18\%, with a 1-in-20 chance that total national electricity expenditures will rise over 23\% compared to a historical climate scenario.”).

\textsuperscript{23} Ariel Drehobl et al., \textit{How High are Household Energy Burdens?}, Am. Council for an Energy-Efficient Econ. iii (2020), available at https://www.aceee.org/sites/default/files/pdfs/u2006.pdf (“The median energy burden for Black households is 43\% higher than for non-Hispanic white households (4.2\% versus 2.9\%), and the median energy burden for Hispanic households is 20\% higher than that for non-Hispanic white households (3.5\% versus 2.9\%).”).

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For instance, marginalized communities tend to experience disparate harm from extreme heat, which is greatly exacerbated by climate change’s warming effect. Extreme heat can cause or contribute to heat exhaustion, heatstroke, and heart attacks, among other diseases. Across 49 large U.S. cities, an additional 9,000 premature deaths are projected by the end of the century due to climate-induced changes in extreme temperatures. These impacts are likely to fall disproportionately on minority communities such as Black Americans, who face a greater risk of cardiovascular disease. Outdoor workers, a group which includes a disproportionate share of minority and low-wage workers, are also at particular risk due to substantially increased heat exposure.

These same outdoor workers are also more vulnerable to poor air quality. “Increased demand for [indoor] cooling will likely also increase energy-related emissions of criteria air pollutants (for example, nitrogen oxide and sulfur dioxide) … which are particularly important in the summer, when warmer temperatures and more direct sunlight can exacerbate the formation of photochemical smog.” In fact, climate change is projected to cause an increase in ground-level ozone levels “over most of the United States, particularly over already polluted areas.” Ground-level ozone causes emergency-room visits and premature deaths, aggravates asthma, and reduces productivity among outdoor workers. Additionally, other marginalized communities such as the elderly, children, and those with chronic illnesses are “especially susceptible” to the harmful effects of ozone. For instance, rates of asthma are highest among poor and certain minority communities.

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26 Agriculture and Rural Communities at 9; see also Janet L. Gamble et al., Populations of Concern, The Impacts of Climate Change on Human Health in the United States: A Scientific Assessment, U.S. Global Change Research Program (2016).


30 Energy Supply, Delivery, and Demand at 181.


32 Air Quality at 519.

33 Id. at 517.

Higher temperatures also prolong and intensify pollen and allergy seasons.\(^{35}\) And exposure to wildfire smoke increases mortality of all causes, most notably respiratory illnesses like asthma, chronic obstructive pulmonary disease, and pneumonia.\(^{36}\) “Indigenous peoples have disproportionately higher rates of asthma, cardiovascular disease, Alzheimer’s disease or dementia, diabetes, and obesity. These health disparities have direct linkages to increased vulnerability to climate change impacts, including changes in the pollen season and allergenicity, air quality, and extreme weather events.”\(^{37}\) Moreover, “[t]he health risks of climate change are expected to compound existing health issues in Native American and Alaska Native communities, in part due to the loss of traditional foods and practices, the mental stress from permanent community displacement, increased injuries from lack of permafrost, storm damage and flooding, smoke inhalation, damage to water and sanitation systems, decreased food security, and new infectious diseases.”\(^{38}\)

As discussed in the Economic Impacts section above, climate-induced increases in energy costs will worsen the state of energy insecurity across the country. And while heat stress, air pollutants, allergens, and wildfires cause their own sets of direct health impacts, energy insecurity in low-income communities is also expected to harm human health. Energy insecurity is associated with poor respiratory health, mental health, and sleep outcomes, exacerbating respiratory and mental health-related disparities in vulnerable populations.\(^{39}\)

Moreover, while climate change will alter and exacerbate a host of additional cardiovascular, respiratory, and other disease vectors,\(^{40}\) these changes can be expected to have greater impacts on “[p]opulations with increased health and social vulnerability” that “typically have less access to information, resources, institutions, and other factors to prepare for and avoid the health risks of climate change.”\(^{41}\)


\(^{37}\) Tribes & Indigenous Peoples at 15.

\(^{38}\) Human Health at 547.


\(^{41}\) Human Health at 548 (“Some of these communities include poor people in high-income regions, minority groups, women, pregnant women, those experiencing discrimination, children under five, persons with physical and mental illness, persons with physical and cognitive disabilities, the homeless, those living alone, Indigenous people, people displaced because of weather and climate, the socially isolated, poorly planned
Resource and Infrastructure Impacts

Climate change is also expected to exacerbate resource and infrastructure inequalities facing marginalized communities due to their higher vulnerabilities to sea-level rise and constrained climate adaptability. Once again, while infrastructure and resource impacts will affect all parts of society, certain minority and low-income communities will tend to experience these effects most severely due to their greater exposure and susceptibility and lesser ability to adapt and recover.

The impacts of sea-level rise and flooding, for instance—which are expected to cause widespread damage in coastal communities—will likely hit low-income communities the hardest. For example, energy infrastructure, which is typically concentrated in low-income communities and communities of color, is already vulnerable to flooding, which can cause hazardous spills and widespread contamination. Increases in the intensity of hurricanes further exacerbates energy infrastructures’ exposure to both storm surge flooding and wind damage. To give a sense of what is at stake, a global mean sea-level rise of one meter will cause the number of vulnerable energy generation plants in Florida to double, and in Texas to triple.

Moreover, inequalities in exposure and recovery are generally exacerbated in environmental-justice communities by the fact that the elderly, children, individuals with disabilities, people experiencing poverty, and groups subject to discrimination are often excluded from disaster-planning processes. Also, “[l]ack of economic diversity, limited access to the internet, and relatively limited infrastructure, resources, and political clout further detract from the adaptive capacity of rural and tribal communities.”

42 Union of Concerned Scientists, Underwater: Rising Seas, Chronic Floods, and the Implications for U.S. Coastal Real Estate (2018).


45 Energy Supply, Delivery, and Demand at 180.


48 Agriculture and Rural Communities at 409.
communities and other low-population areas frequently also receive less funding for disaster risk reduction.\textsuperscript{49}

**Deficiencies With This Assessment**

Despite the extensive emissions that will result from this proposal\textsuperscript{50}—and the fact, as detailed above, that those emissions may disproportionately and profoundly burden minority and low-income communities—the agencies do not so much as acknowledge the environmental-justice implications of the plan’s greenhouse gas emissions, much less analyze them in detail as NEPA requires.

Instead, the DEIS’s environmental-justice analysis focuses exclusively on the current demographics of the local population.\textsuperscript{51} But this entirely fails to capture the effects of greenhouse gas emissions, which mix into the global atmosphere and linger for centuries. Furthermore, the DEIS does not even mention greenhouse gas emissions or climate change in its environmental-justice analysis. The agencies do not recognize any of the disparate impacts from the plan’s greenhouse gas emissions on minority and low-income populations—including economic, human-health, and infrastructure harms, as detailed above.

This is plainly inadequate. As previously discussed, Executive Order 12,898 requires federal agencies to assess all “adverse human health or environmental effects” on low-income and minority populations “[t]o the greatest extent practicable,”\textsuperscript{52} and agencies have long recognized that ample consideration of the disparate impacts of global climate change is required under this standard. For instance, as the Federal Interagency Working Group on Environmental Justice has explained, because “[c]limate related hazards exacerbate other stressors, often with negative outcomes for livelihoods, especially for people living in poverty,” agencies should “consider how impacts from the proposed action could potentially amplify climate change-related hazards (e.g., storm surge, heat waves, drought, flooding, and sea level change) in minority populations and low-income populations in the affected environment.”\textsuperscript{53} Guidance from the Department of the Interior likewise highlights the link between climate change and environmental justice.\textsuperscript{54} And some agencies have provided extensive consideration of and detail on the environmental-justice implications of

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\textsuperscript{49} *Tribes and Indigenous Peoples* at 585.

\textsuperscript{50} See note 4 and accompanying text.

\textsuperscript{51} DEIS at 3-218 to 3-220.1

\textsuperscript{52} Exec. Order No. 12898 § 1-101.

\textsuperscript{53} *Practices for EJ Methodologies* at 31.

prior actions affecting climate change. In one environmental assessment, for instance, Interior’s Bureau of Ocean Energy Management recognized climate-change induced threats to Alaskan indigenous communities in connection with the proposed leasing activity, including with respect to subsistence use of natural resources, food security, human health, economic security, and sociocultural integrity.

In short, the agencies’ “bare-bones” assessment of the impacts of the plan’s greenhouse gas emissions on environmental-justice communities does not satisfy the “hard look” that NEPA requires. Finalizing the plan without further analysis on this front would be arbitrary and capricious.

Sincerely,

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Attachments:
2) Prasanna Gowda et al., Agriculture and Rural Communities, Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment, Vol. II (David R. Reidmiller et al. eds., 2018)

55 See, e.g., supra notes 12–13 and accompanying text.
56 See Bureau of Ocean Energy Management, Final Environmental Impact Statement for Cook Inlet Planning Area Oil and Gas Lease Sale 244 at 4-206, 3-183, 4-251, 5-70 (2016).
57 Standing Rock, 255 F. Supp. 3d at 140.