April 16, 2024

Mr. Jeremy Bluma, Senior Advisor
U.S. Bureau of Land Management Headquarters
National Renewable Energy Coordination Office
jbluma@blm.gov

RE: Comments on BLM’s Draft Programmatic EIS for Utility-Scale Solar Energy Development and Associated Resource Management Plan Amendments

Dear Mr. Bluma:

I. Introduction and Comments Overview

The Women’s Mining Coalition (WMC) appreciates the opportunity to provide public scoping comments for the Draft Utility-Scale Solar Programmatic Environmental Impact Statement (DPEIS) that the U.S. Bureau of Land Management (BLM) has prepared to update the Western Solar Plan (WSP), which covers eleven western states. We are submitting these comments in response to BLM’s January 19, 2024, Notice of Availability in the Federal Register, Vol. 89, No. 13. This solar planning effort augments and updates BLM’s 2012 WSP.

WMC is a grassroots organization with over 200 members nationwide. Our mission is to advocate for today’s modern domestic mining industry, which is essential to our Nation. WMC members work in all sectors of the mining industry including hardrock and industrial minerals, coal, energy generation, manufacturing, transportation, and service industries. We convene annual Washington, D.C. Fly-Ins to give our members an opportunity to meet with members of Congress and their staffs, as well as with federal land management and regulatory agencies to discuss issues of importance to both the hardrock and coal mining sectors.

WMC members have extensive experience in the National Environmental Policy Act (NEPA) and in the review of NEPA documents covering a variety of topics, but primarily for exploration and mining projects and other types of projects that have the potential to impact exploration and/or mining on public lands. As the generation of solar power is becoming more prevalent in many areas across the country, particularly in the western states, the WMC wishes to convey our concerns regarding the potential conflicts between solar energy and mineral resources that this DPEIS raises, in particular as related to many different current exploration and mining projects as well as many future projects across the 11-state area covered by the DPEIS.
WMC has four primary concerns about the WSP as outlined in the DPEIS:

1. There appear to be some inconsistencies with the DPEIS. Specifically, the information regarding future solar development in the DPEIS is completely inconsistent with, for example, the discussion of solar development in southern Nevada in the BLM’s May 2023 Draft EIS for the Greenlink West Transmission Project.

2. Throughout the western U.S. there are many ongoing and proposed exploration and mining projects. As currently proposed, the WSP has the potential to create numerous conflicts between proponents of solar energy projects and those of mineral resources development. The BLM is obligated to avoid and minimize such conflicts to the maximum extent possible.

3. The DPEIS fails to satisfy the environmental analysis and impact avoidance and mitigation requirements defined under NEPA.

4. The proposed WSP violates the multiple use mandates in the Federal Land Policy and Management Act (FLPMA).

Our specific comments are detailed in the following sections.

II. The Reasonably Foreseeable Development Scenario is Inconsistent with the Reasonably Foreseeable Future Action in the 2023 Greenlink West Draft EIS/RMP Amendments

In May 2023, BLM published a Draft EIS/Resource Management Plan (RMP) Amendment for the Greenlink West Project, DOI-BLM-NV-0000-2022-0004-EIS, (Greenlink DEIS) in Nevada. The Greenlink DEIS states there are 51 pending solar applications in Clark, Esmeralda, Mineral, and Nye Counties. Yet there is no mention of these pending solar applications in the Reasonably Foreseeable Development Scenario (RFDS) in the DPEIS when compared to the Reasonably Foreseeable Future Actions (RFFA) discussed in the Greenlink DEIS. This creates a major disparity between the two documents. The Affected Environment chapter and the RFDS for Nevada in the DPEIS fail to consider or even mention the 51 pending solar energy applications that are discussed in the Greenlink DEIS. According to the Greenlink DEIS, these solar energy development projects are predicted to cover 309,271 acres in Clark, Esmeralda, Mineral, and Nye Counties. Since these are pending applications, they must be discussed as part of the baseline conditions in the Affected Environment chapter and in the RFDS discussion in the Cumulative Impacts analysis in the DPEIS. The DPEIS’ omission of any discussion of the 51 pending solar applications is a fatal flaw that needs to be cured in a Draft Supplemental PEIS.

In a Draft Supplemental PEIS, the BLM needs to explain and eliminate the glaring inconsistency between the DPEIS and the Greenlink DEIS. The DPEIS discusses 48,119 RFDS acres of disturbance for solar projects for the entire state of Nevada between now and 2045, which is a mere 15 percent of the 309,271 acres described in the RFFA for the four southern Nevada counties discussed in the Greenlink DEIS. The 51 pending applications for solar projects range in size from 420 acres to over 17,000 acres (Greenlink DEIS, Pages 3-349 and 3-455.) Table T-2 in Appendix T to the Greenlink DEIS lists the 51 pending solar project applications evaluated as RFFAs and includes maps showing the location of these RFFA solar projects. The DPEIS should have discussed these projects as part of the baseline conditions in the Affected Environment chapter and also as part of the RFDS in the cumulative impacts analysis.
In marked contrast to the 51 pending solar projects discussed in the Greenlink DEIS and listed in Appendix T, Table T-2, Table 1-1, “Solar Energy Projects on BLM-Administered Lands” in Section 1.1.3 of the DPEIS shows there are six currently operational solar projects in Nevada and only five Nevada solar facilities pending construction. Cumulatively, the operational and pending Nevada solar projects considered in the DPEIS cover just 17,697 acres, which is a small fraction of the 309,271 acres of disturbance for the pending solar projects in Clark, Esmeralda, Mineral, and Nye counties discussed in the Greenlink DEIS.

The enormous disparity between these two documents needs to be resolved. A Draft Supplemental PEIS would provide BLM the opportunity to update this information in order to detail the potential impacts from solar energy development and provide an accurate assessment of those impacts in the WSP planning area. Based on one example, the Greenlink DEIS, it appears that the DPEIS for the WSP has grossly underestimated the likely impacts from future solar development in Nevada and, by analogy, throughout the planning area. BLM must substantially revise the DPEIS and publish a Draft Supplemental PEIS that addresses the substantial inconsistency between the Greenlink DEIS (and potentially others) and the NEPA document for the WSP.

III. The DPEIS Does Not Satisfy the Requirements of NEPA

A. Mineral Resources Sections of the PDEIS are Inadequate

The Affected Environment and Environmental Impacts chapters of the DPEIS do not satisfy the requirements under the NEPA. Both chapters provide a superficial discussion of mineral resources and do not take the required “hard look” at how the proposed action would impact these resources. The Affected Environment section on Mineral Resources, Section 4.11, which is less than one-page long, offers an inadequate and dismissive discussion of the mineral resources within the 11-state planning area.

Section 4.11 states that Table F.11-1 in Appendix F, Section F.11.2 “provides information on mineral acreage administered by BLM within the 11-state planning area”. However, Table F.11-1 is missing from Appendix F, Section F.11.2. It appears that the correct table number is Table F.11.2-1, which shows that BLM manages 411 million acres of federal minerals in the 11-state planning area. Obviously, this is a substantial acreage to be summarily dismissed as incompatible with proposed solar projects.

The Environmental Impacts section for mineral resources, Section 5.11, is also inadequate. Again, the discussion of impacts to mineral resources is cursory at best and fails to take a hard look, as required by NEPA, at the land use conflicts between solar energy and mineral resources development:

Utility-scale solar energy development could affect the ability to develop and extract [mineral] resources where mineral development would be incompatible with the previously authorized solar energy development...If some mineral access is interrupted by a solar energy project, the resulting impact would be moderate to high if there are not similar options to obtain those minerals within a reasonable distance. (DPEIS Page 5-133)
Despite the potential impact to mineral access by a solar project being characterized as “moderate to high”, there is no further discussion of how those impacts might be avoided, minimized, or mitigated. The dismissive nature of this disclosure of land use conflicts and impacts to mineral resources does not meet the NEPA requirement to avoid or minimize impacts or how to mitigate unavoidable impacts. Additionally, FLPMA requires BLM to balance multiple uses on public lands, which also requires BLM to consider ways to avoid, minimize, or mitigate land use conflicts.

Section 5.11.2 on cumulative impacts to mineral resources briefly discusses locatable minerals stating:

“By the end of FY 2022, there were 482,141 active mining claims, covering 11 million acres on BLM-administered lands within the 11-state planning area, with the highest number (247,187) in Nevada, a 21% increase from the number of claims in FY 2012.”

(DPEIS Page 5-135)

The deficiency of the analysis of impacts to mineral resources is especially apparent in Appendix F, “Methodologies and Supplemental Materials for Analysis of Affected Environment and Environmental Effects of Solar Energy Development on Resources.” Section F.11 entitled “Minerals” does not include any information on locatable minerals or mining claims. The words, “mining claims” are absent from Section F.11. Table F.11.2-8 “Hardrock Leases, FY 2022” shows there are four hardrock leases in the 11-state planning area (emphasis added).

It would appear that the BLM contractor that prepared the DPEIS and Table F.11.2-8 confused hardrock leases with hardrock mining claims. BLM should have caught and eliminated this serious error, which must now be corrected in a Draft Supplemental PEIS. NEPA requires BLM to provide a full analysis of the potential impacts that solar energy development will have on locatable minerals; however, the DPEIS has completely failed to satisfy this requirement because it has not thoroughly evaluated how solar energy development could interfere with and possibly preclude mineral development. As written, the DPEIS grossly underestimates the potential for land use conflicts between solar energy and mineral development and ignores BLM’s obligations under both NEPA and FLPMA to minimize these conflicts.

Even if Table F.11.2-8 provided information on the number of mining claims in each state, it would still be inadequate because it does not explain that many critical minerals are locatable minerals. This table describes hardrock leases as being for the following minerals: copper, nickel, lead, zinc, cadmium, cobalt, gold, silver, garnet, uncommon-variety limestone or clay, platinum, palladium, quartz crystals, semiprecious gemstones, uranium, or other minerals. The omission of lithium, barite, rare earths, vanadium, graphite, and other critical minerals in this list of locatable (not “leasable”) minerals is a serious error given the intense exploration for lithium and other critical minerals throughout the planning area. Mineral leases and mining claims are very different and distinct from one another, and confusion of the two lends itself to a wholly inadequate analysis of potential impacts to mineral resources. This mistake must be rectified.

B. NEPA Requires BLM to Evaluate Ways to Avoid, Minimize, or Mitigate Impacts to Mineral Resources

Land use conflicts between solar and mineral projects or any discussion of ways to avoid, minimize, or mitigate such conflicts, is totally lacking in the DPEIS. The DPEIS makes the cursory statement that “Solar energy facilities would be incompatible with most types of mineral production because of
the intensive land coverage required. Underground mining might remain viable beneath solar energy facilities…” (DPEIS, Page 5-136).

The fact that mineral projects are simply mentioned in passing, does not in any way satisfy the requirements under the Council on Environmental Quality’s (CEQ’s) implementing regulations for NEPA (40 CFR §§ 1500-1508). These regulations define mitigation as follows:

**Mitigation** means measures that avoid, minimize, or compensate for effects caused by a proposed action or alternatives as described in an environmental document or record of decision and that have a nexus to those effects. While NEPA requires consideration of mitigation, it does not mandate the form or adoption of any mitigation. Mitigation includes:

1. Avoiding the impact altogether by not taking a certain action or parts of an action.
2. Minimizing impacts by limiting the degree or magnitude of the action and its implementation.
3. Rectifying the impact by repairing, rehabilitating, or restoring the affected environment.
4. Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action.
5. Compensating for the impact by replacing or providing substitute resources or environments.

In 40 CFR §1502.1, “Purpose of environmental impact statement,” the CEQ regulations explicitly require federal agencies to evaluate ways to avoid and minimize impacts:

The primary purpose of an environmental impact statement...is to ensure agencies consider the environmental impacts of their actions in decision making. It shall provide full and fair discussion of significant environmental impacts and shall inform decision makers and the public of reasonable alternatives that would avoid or minimize adverse impacts or enhance the quality of the human environment.

The section of the CEQ regulations pertaining to Records of Decision (RODs) for an EIS, (40 CFR § 1505.2(a)(3)), clearly state that an agency must disclose whether it has: “adopted all practical means to avoid or minimize environmental harm from the alternative selected, and if not, why the agency did not.”

Although the DPEIS is silent on how impacts to mineral resources would or could be avoided or minimized, it does not relieve the BLM of their mandate to examine ways to avoid or minimize a potential conflict as required by the CEQ implementing regulations as discussed above. The characterization in the DPEIS that solar and mineral developments are incompatible and therefore mutually exclusive does not eliminate the requirement to discuss ways in which conflicts could be avoided or minimized in order to satisfy the NEPA requirements.

C. **A Supplemental DPEIS Should Add an Alternative that Creates a Resource-Based Exclusion Criterion for Mining Claims**
The Supplemental DPEIS should add an alternative that defines mining claims as a dynamic resource-based exclusion criterion that prohibits solar projects from being sited in areas of active mining claims within the proposed project area. The number of mining claims in each state varies and is not static, therefore, the recommended dynamic mining claims exclusion criterion would automatically change and update with time.

This recommended alternative would allow BLM to clearly demonstrate that it complied with FLPMA, mining claimants’ rights under the U.S. Mining Law (30 U.S.C. §§ 21a et seq.), and BLM’s stated commitment to avoid impacting valid or prior existing rights. This alternative is also necessary to respond to several immutable facts that are unique to mineral resources that BLM must consider in its public land management decisions:

- Geology determines where mineral deposits are located;
- Mineral deposits are rare and hard to find because many of them are buried and are not visible on the surface of the land;
- The odds of discovering a mineral deposit that can be developed into an economic mine are exceptionally slim. The National Academy of Sciences estimates that only one in one thousand prospects will contain sufficient mineralization to become a mine;
- Discovering a mineral deposit is much more difficult than identifying areas with suitable characteristics for a solar energy development; and
- Mineral deposits cannot be moved; they can only be developed at the location where they have been discovered.

Solar energy projects have considerably more siting flexibility than mineral resource exploration and development projects. By defining certain areas that would be off limits to solar development due to the existence of mining claims, this alternative would provide solar project proponents clear guidance during project siting and planning regarding which areas must be avoided. This alternative would also encourage solar project developers to work with mining claim owners to determine if it is feasible on a project level to design a solar project that minimizes interference with mineral exploration and development activities.

In Section 5.11.2, the DPEIS states:

“Numerous existing mining interests that represent prior existing rights lie within areas available for solar ROW application; these areas would either have to be avoided during PV solar project siting, or new rights negotiated.” (DPEIS, Page 5-135)

A plausible interpretation of this statement is that it functions as a de facto resource exclusion on lands where there are mining claims. However, this discussion is too vague and truncated to

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1 DPEIS at Pages 1-6, 5-123, and 5-135.
provide clear information or guidance to either solar energy project developers or to mining claim owners. BLM should revise the DPEIS to establish a resource exclusion for active mining claims to clarify that solar developers must avoid mining claims unless they are able to negotiate a mutually acceptable agreement with the mining claim owner.

Section 4.11 in the DPEIS acknowledges the economic importance of mining, stating: “Energy and mineral resources are among the highest economic commodities among commercial uses for surface lands and subsurface estates administered by the BLM.” (DPEIS, Page 4-69). Similarly, Section 5.11.1 states: “A substantial portion of BLM-administered land within the 11-state planning area is valuable to supporting current and future fluid and solid mineral resource development and extraction. Utility-scale solar energy development could affect the ability to develop and extract these resources where mineral development would be incompatible with the previously authorized solar energy development.” (DPEIS, Pages 5-132 and 5-133).

Despite the acknowledgement that the lands in the planning area contain important and valuable mineral resources, the lack of discussion on how to avoid and minimize land use conflicts between mineral resources and solar energy development strongly suggests that BLM has deemed solar energy development to be more important than mineral development by declaring the two are incompatible. The recognition that mineral resources are economically important underscores BLM’s obligations to evaluate ways to avoid and minimize conflicts between mineral and solar development in order to prevent significant economic losses to mining communities throughout the 11-state WSP area where mining is an important source of high-paying jobs and makes significant contributions to the economy.

IV. FLPMA Requires BLM to Balance Different Land Uses and Minimize Conflicts

A. FLPMA Does Not Allow One Use to Become the Dominant Use Over Others

One of Congress’ key purposes in enacting FLPMA was to direct BLM to manage public lands for multiple use. The multiple use and sustained yield directive in FLPMA Section 102(a)(7) states: “...it is the policy of the United States that–

goals and objectives be established by law as guidelines for public land use planning, and that management be on the basis of multiple use and sustained yield unless otherwise specified by law;”

In FLPMA Section 102(a)(12), Congress established that public lands must be managed to protect numerous resources, stating: “...it is the policy of the United States that–

the public lands be managed in a manner which recognizes the Nation’s need for domestic sources of minerals, food, timber, and fiber from the public lands including implementation of the Mining and Minerals Policy Act of 1970 (84 Stat. 1876, 30 U.S.C. 21a) as it pertains to the public lands”

In the Mining and Minerals Policy Act of 1970 (MMPA), “Congress declares that it is the continuing policy of the Federal Government in the national interest to foster and encourage private enterprise in:
(1) the development of economically sound and stable domestic mining, minerals, metal and mineral reclamation industries,

(2) the orderly and economic development of domestic mineral resources, reserves, and reclamation of metals and minerals to help assure satisfaction of industrial, security and environmental needs,

(3) mining, mineral, and metallurgical research, including the use and recycling of scrap to promote the wise and efficient use of our natural and reclaimable mineral resources, and

(4) the study and development of methods for the disposal, control, and reclamation of mineral waste products, and the reclamation of mined land, so as to lessen any adverse impact of mineral extraction and processing upon the physical environment that may result from mining or mineral activities.”

The MMPA defines minerals as “all minerals and mineral fuels including oil, gas, coal, oil shale, and uranium, and directs the Secretary of the Interior “to carry out this policy when exercising his authority under such programs as may be authorized by law other than this section.”

Congress defined “multiple use” and “sustained yield” in FLPMA Sections 103(c) and 103(h) as follows:

(c) The term ‘multiple use’ means the management of the public lands and their various resource values so that they are utilized in the combination that will best meet the present and future needs of the American people; making the most judicious use of the land for some or all of these resources or related services over areas large enough to provide sufficient latitude for periodic adjustments in use to conform to changing needs and conditions; the use of some land for less than all of the resources; a combination of balanced and diverse resource uses that takes into account the long-term needs of future generations for renewable and nonrenewable resources, including, but not limited to, recreation, range, timber, minerals, watershed, wildlife and fish, and natural scenic, scientific and historical values; and harmonious and coordinated management of the various resources without permanent impairment of the productivity of the land and the quality of the environment with consideration being given to the relative values of the resources and not necessarily to the combination of uses that will give the greatest economic return or the greatest unit output.

(h) The term ‘sustained yield’ means the achievement and maintenance in perpetuity of a high-level annual or regular periodic output of the various renewable resources of the public lands consistent with multiple use.

Although these statutory definitions provide BLM with discretionary authority to modify the ways in which lands are managed to respond to changing “needs and conditions,” they do not authorize BLM to promote solar energy development, or any other type of land use, in preference to mineral resources development. BLM cannot categorically dismiss the Congressional directive pertaining to other land uses, including the explicit dictate pertaining to mineral resources in FLPMA Section 102(a)(12). The WSP is therefore unlawfully proposing to transform FLPMA from a multiple use statute into a solar energy development law.
B. The WSP Interferes with The Nation’s Critical Minerals Needs and Objectives

BLM cannot ignore the FLPMA Section 103(c) directive that requires BLM to “best meet the present and future needs of the American people...to conform to changing needs and conditions...[and achieve] a combination of balanced and diverse resource uses that takes into account the long-term needs of future generations for renewable and nonrenewable resources, including, but not limited to, recreation, range, timber, minerals, watershed, wildlife and fish, and natural scenic, scientific and historical values.” Unfortunately, that is precisely what the WSP does by eliminating the balance that FLPMA demands between solar energy and mineral development.

The DPEIS reflects a strong bias that solar energy development is more important than mineral exploration and development, which eliminates the balance that FLPMA requires, and overlooks the country’s urgent need and policy objective to develop domestic sources of the minerals used to build the technologies and infrastructure essential for the transition away from fossil fuels and toward increased use of renewable energy. As written, the WSP is at counter purposes with these goals. On the one hand, it seeks to promote solar energy development as an important element in achieving the Biden Administration’s stated goals to reach net-zero carbon emissions by 2050. On the other hand, it interferes with the development of the domestic minerals that are the building blocks for the energy transition infrastructure needed to achieve net-zero and to strengthen our critical minerals supply chains.

The Nation cannot achieve the 2050 net-zero objective without domestic minerals, many of which need to be mined on the Nation’s public lands in the 11-state planning area. Therefore, the WSP needs to be revised to eliminate – or at least minimize – conflicts with mineral resources. The proposed WSP will create the unintended consequence of exacerbating the Nation’s dangerous dependence on foreign sources of minerals by putting lands functionally off limits to mineral exploration and development, thereby reducing domestic mineral production. The mineral resources exclusion criterion recommended in Section III C would help eliminate this undesirable outcome.

C. BLM Must Minimize Adverse Impacts to Mineral Resources to Avoid Harming the Economy in Mining Communities

The BLM must do more to avoid and minimize the land use conflicts that the DPEIS acknowledges are likely to occur between the proposed WSP and mineral exploration and development in order to avoid harming rural western communities whose economies benefit from mineral activities. The DPEIS does not adequately disclose and analyze how solar development interferes with and even precludes the jobs creation and tax revenues and other economic benefits derived from mineral exploration and mining.

Before BLM proceeds with the WSP, the U.S. Geological Survey (USGS) needs to prepare a new Mineral Potential Report (MPR) that evaluates potential discovery and development of a variety of mineral deposits throughout the planning area. BLM cannot rely on the MPR developed for BLM’s 2012 WSP because it is out of date and needs to be updated to reflect the numerous post-2012 mineral discoveries throughout the 11-state planning area. For example, an updated MPR for Nevada would show several new exploration and mining projects across southern Nevada precisely where many solar energy projects are planned (e.g., the 51 pending solar applications described in the Greenlink DEIS). In southern Nevada alone, there are recently discovered deposits of gold near Beatty, high-grade silver underlying Tonopah, several lithium claystone deposits and lithium brine
deposits in Railroad Valley and plans to redevelop the Hall copper-molybdenum-silver deposit. An updated MPR needs to be considered in a Draft Supplemental PEIS.

VI. Conclusions

WMC appreciates this opportunity to submit comments on the DPEIS. As discussed herein, in order to comply with its multiple use mandate, BLM must carefully consider ways to balance solar energy and mineral exploration and development. The WSP described in the DPEIS fails to satisfy BLM’s multiple use mandate pursuant to FLPMA because it does not consider ways to avoid, minimize, or mitigate impacts to mineral resources, and it improperly elevates solar energy projects and subordinates mineral projects. WMC hopes that BLM finds our recommendation to create a resource exclusion criterion for mining claims as a constructive and practical way to minimize conflicts between solar energy and mineral resource development.

At a time when there is widespread recognition of how the energy transition is creating skyrocketing demand for many critical minerals, the DPEIS must evaluate ways to balance solar energy development projects with mineral resource development projects to supply the Nation with the minerals that are indispensable components of electric vehicles, battery energy storage systems, solar panels, wind turbines, transmission lines, and all other equipment and infrastructure needed for the transition to renewable energy.

WMC appreciates that BLM is not proposing any mineral segregations or withdrawals in conjunction with the updated WSP in contrast to the 2012 WSP, which withdrew 31,549 acres as Solar Energy Zones (SEZ)\(^3\). The SEZs were withdrawn from operation of the Mining Law for a period of 20 years, which will end in 2032. The absence of a withdrawal in the DPEIS for the updated WSP suggests that BLM recognizes that withdrawing land is not necessary for promoting solar energy development. Consequently, WMC strongly encourages BLM to not extend these withdrawals for another 20-year term. Ideally, BLM should terminate the withdrawals before their 2032 expiration.

As the Nation requires more domestic minerals that are required for all renewable energy technologies – including solar - now is not the time for BLM to change the rules around the multiple use mandate and manage the public lands in a manner that favors solar energy development over mineral resource projects. WMC is confident that the right balance between these two essential resources can be achieved. Unfortunately, without significant revision, the DPEIS for the updated WSP will not meet this critically important objective.

Respectfully,

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3 See DPEIS, Section 5.11.4.2