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May 14, 2011

SUBMITTED ELECTRONICALLY

BLM Oil Shale and Tar Sands,
Resources Leasing Programmatic EIS Scoping
Argonne National Laboratory, EVS 240
9700 S Cass Avenue
Argonne, Illinois 60439

Re: WO-300-1310-PP-OSHL — Notice of Intent to Prepare a Programmatic Environmental Impact Statement (EIS) and Possible Land Use Plan Amendments for Allocation of Oil Shale and Tar Sands Resources on Lands Administered by the Bureau of Land Management in Colorado, Utah, and Wyoming, 76 FR 21003 (April 14, 2011)

Dear Sir or Madam:

The Center for Regulatory Effectiveness (CRE) is pleased to submit these comments to the Bureau of Land Management (BLM) regarding its notice of intent to prepare a Programmatic EIS and possibly amend land use plans relating to oil shale. CRE recommends that BLM take no action, which would leave the current allocation decision from the 2008 Programmatic EIS and Record of Decision (ROD) in place.

BLM should not amend the eight land use plans—as modified by the 2008 ROD—which allocated public lands for leasing and development of oil shale resources. BLM's decision that it is necessary for it to take a "hard look" at whether the lands should be designated for the development of oil shale is based on the premature determination that oil shale development is "not at present a proven commercially-viable energy source."[1] BLM has not provided developers with ample opportunity to develop oil shale commercially. As the Federal Register notice states, new technologies for the extraction of oil shale are still in the development and testing phase.[2] Until the testing and development of oil shale extraction technologies have been

[1] 76 FR 21003, April 14, 2011.
[2] *Id.* at 21004.

completed, any modification to the allocated land use for oil shale would be hasty and conflict with the intent of Congress that "It is the policy of the United States that— (1) United States oil shale, tar sands, and other unconventional fuels are strategically important domestic resources that should be developed."[3]

CRE offers the following recommendations to BLM in order for it to fulfill the mandates of the Energy Policy Act of 2005 and to remain committed to pursuing the development of oil shale. Moreover, as discussed in Sections II and III below, if BLM prepares a Programmatic EIS, it must comply with the Information Quality Act (IQA).

I. Royalty Policies: A Determinant of Economic and Commercial Viability

BLM's Federal Register notice states, "there are no economically viable ways yet known to extract and process oil shale for commercial purposes, and Utah tar sands deposits are not at present a proven commercially-viable energy source..." This preliminary judgment, which forms the agency's justification for taking a "hard look" at whether certain oil shale and tar sands lands remain open to development, is made without reference to the agency's royalty policies. Royalty policies, however, are crucial for determining whether development of any or all of the specified lands is economically and commercially viable. Although development of some resources may not currently be viable irrespective of royalties, no minerals development project on federal lands is viable if royalties are incorrectly set.

The two royalty policies, which are influential on determining the viability of any potential development project, are the Royalty Rate and Point of Royalty Determination.

The Energy Policy Act includes restrictions on agency discretion in setting royalty policies in order to promote resource development. Two of the Act's constraints on the agency create twin principles that guide royalty policy decisions, and hence are influential on viability determinations. It should be noted that agency assessments of whether development of any given tract of land is viable must comply with the "utility" and "objectivity" requirements in the Data Quality Act and the Bureau of Land Management's Information Quality Guidelines. The twin royalty principles are:

- **Encouraging Development**. As BLM had previously noted, the Act "directs the agency to establish royalties and other payments for oil shale leases that shall – (1) Encourage development of the oil shale and tar sands resources" and ensure a fair return to the United States.[4] Thus, one principle for determining royalty policies is that the options chosen ensure the initial viability of shale

[3] Energy Policy Act of 2005, P.L. 109–58, § 369

[4] 73 Fed. Reg 42930, July 23, 2008.

development projects, *e.g*., companies bid for leases and undertake the application process.

- **Sustaining Diligent Development**. BLM also explained that the "Act requires that the BLM establish work requirements and milestones to ensure diligent development of Federal oil shale leases."[5] Thus, the second principle is that the royalty policies must encourage "diligent development" of the leased lands, which means the lessee fulfilling their investment and development activities on schedule.

Thus, BLM has explicitly recognizing that viability requires more than just setting royalties to encourage initiation of the development process but also for the agency to incorporate the "steps necessary for the development of the oil shale" into the diligence milestones to help "encourage development."

The second principle, sustaining diligent development, is crucial to determining whether or not development of certain lands is economically and commercially viable since agency's royalty policies must provide sufficient financial incentive to encourage sustained and predictable development activities even though the costs and risks associated with those activities are uncertain and the value of any oil produced is subject to substantial market fluctuations.

It should be noted that these two royalty policy principles dovetail with the requirement in the agency's Information Quality Guidelines that BLM maximize the utility of information it disseminates to the public since an incorrect or biased determination regarding economic and commercial viability would reduce the utility of the information in increasing domestic energy production.

II. A Programmatic EIS is an "information dissemination" subject to the Information Quality Act standards and the peer review requirements.

NEPA documents are clearly information disseminations covered by the IQA and its guideline requirements.[6] The IQA and its general government-wide guidance[7] requires that

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[5] Ibid. p. 42928.

[6] 44 U.S.C. § 3516, note; 67 Fed. Reg. 8452, Feb. 22, 2002 (basic OMB government-wide guidelines); 70 Fed. Reg. 2664, Jan. 14, 2005 (OMB peer review guidance). The U.S. Circuit Court for the District of Columbia has held that the IQA guidelines have the "force of law" in *Prime Time Int'l v. Vilsack*, 599 F.3d 678, 85 (D.C. Circ. 2010) (citing *United States v. Mead* at 226-27). CEQ has acknowledged that the IQA applies to NEPA documents. See CEQ guidance on NEPA categorical exclusions, 75 Fed. Reg. 75628, 75633 n. 23 (Dec. 6, 2010). The Department of the Interior's and BLM's IQA guidance recognizes the applicability of the IQA and both its general and peer review guidance to NEPA documents. See http://www.doi.gov/ocio/iq.html. And BLM has entertained requests for correction of NEPA documents. See

information disseminated to the public shall be "accurate, clear, complete and unbiased," shall be developed "using sound statistical and research methods," and shall be useful for its intended purpose.[8] If the information is considered "influential," it should be held to higher standards.[9] In particular, "influential" scientific information must be transparent with regard to the data and methodology used so that it is substantially reproducible.[10] Information is "influential" if it would have a "clear and substantial impact on important public policies or important private sector decisions." [11]This Programmatic EIS will certainly be "influential" information.

The IQA peer review guidance[12] applies to "influential scientific information" and "highly influential scientific assessments." "Influential scientific information" is information that "the agency can reasonably determine will have or does have a clear and substantial impact on important public or private sector policies."[13] "Highly influential scientific assessments" are assessments that could have a potential impact of more than $500 million in any year, or are "novel, controversial, or precedent-setting" or have "significant inter-agency interest."[14] Scientific assessments include technology assessments, and safety and ecological risk assessments.[15] The draft Programmatic EIS might incorporate assessments of technology or safety or ecological risks – for example, in evaluating risks to groundwater or sage grouse populations and habitat requirements. To the extent that it does, it will require independent external peer review of those issues, and the assessments should be considered "highly influential." As discussed below, peer reviews of "highly influential scientific assessments" in particular are subject to many requirements for public participation and transparency in the peer review planning process and the peer review itself.

III. The draft Programmatic EIS might incorporate a number of "highly influential scientific assessments" that must be subjected to public, independent, external peer review, and BLM must also comply with the public peer review planning provisions of the OMB peer review guidance.

As noted previously, the IQA guidance on peer review requires independent, external peer review of "influential scientific information" and "highly influential scientific assessments." Such information and assessments include review of technological and ecological issues. Since the Programmatic EIS is examining a series of related RMPs that overlap various resource areas,

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BLM responses to Earth Justice petition to correct information in a final EIS in 2008. http://www.blm.gov/wo/st/en/National_Page/Notices_used_in_Footer/data_quality.html.

7 After OMB issued the government-wide guidance, all agencies issued their own conforming guidance.

8 67 Fed. Reg. at 8459.

9 *Id.* at 8452.

10 *Id.* at 8460.

11 *Id.*

12 70 Fed. Reg. 2664 (Jan. 14, 2005).

13 *Id.* at 2675.

14 *Id*.

15 *Id*. at 2667.

consideration of such issues cannot be done on a piecemeal basis, and the reviews are therefore likely to involve either, or both, influential and highly influential information on issues such as designation of areas of critical environmental concern and sage grouse populations and habitat.

Importantly, at present, BLM does not have a peer review agenda and a peer review plan for this project, as is required by the OMB peer review guidance if there are issues of involving influential or highly influential scientific information. BLM should move immediately to consider whether the draft Programmatic EIS will involve such information and reviews, and if so, to establish an agenda and peer review plan for such issues on its information quality website.

Notably, BLM, USGS, USFS, and DOE conducted similar land use planning and technology assessments for geothermal leasing on Western public lands in 2008 (also pursuant to the Energy Policy Act of 2005), but did so without any on them following the IQA peer review guidelines for what is clearly "highly influential scientific information."[16] USGS and DOE conducted peer reviews, but it did not comply with the peer review planning and transparency requirements of the IQA guidance.[17] Such non-compliance is a significant procedural defect that can subject the agencies to judicial challenge.[18]

Such an agenda and its plans will require determination of whether an issue involves influential and highly influential scientific information. In view of the importance of the oil shale and tar sands resources, as evidenced by the attention given them by Congress and the commercial interests, it appears likely that any issues that might affect a significant quantity, or the extraction feasibility, of the oil shale and tar sands resources should be considered "highly influential."

In the case of both influential and highly influential information, there are requirements for independence of peer reviewers, absence of conflicts of interest, compliance with the basic IQA quality standards such as utility and objectivity, and including in the charge to the peer reviewers information concerning the requirements of the IQA and its guidance and admonitions against allowing any policy bias to influence the review.

The main differences between the peer review requirements for influential and highly influential scientific information lie in the degree of public participation and transparency the agency must provide for. The provisions for public participation in highly influential scientific assessments state:

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[16] http://www.blm.gov/wo/st/en/prog/energy/geothermal/geothermal_nationwide.html.

[17] *See* Bureau of Land Management & Forest Service, *Draft Programmatic EIS for Geothermal Leasing in the Western U.S.: Public Meeting—July 2008*, available at http://www.blm.gov/pgdata/etc/medialib/blm/wo/MINERALS__REALTY__AND_RESOURCE_PROTECTION_/energy/geothermal_eis.Par.10283.File.dat/0708pmtgpres.pdf.

[18] The disclaimer at the end of the peer review guidance is meaningless. Agencies cannot immunize themselves from judicial review; only Congress can do so, and it has not done so.

> 5. *Opportunity for Public Participation*: Whenever feasible and appropriate, the agency shall make the draft scientific assessment available to the public for comment at the same time it is submitted for peer review (or during the peer review process) and sponsor a public meeting where oral presentations on scientific issues can be made to the peer reviewers by interested members of the public. When employing a public comment process as part of the peer review, the agency shall, whenever practical, provide peer reviewers with access to public comments that address significant scientific or technical issues. To ensure that public participation does not unduly delay agency activities, the agency shall clearly specify time limits for public participation throughout the peer review process.[19]

In the case of this Programmatic EIS, it is undoubtedly "feasible and appropriate" to make the draft Programmatic EIS available for comment, and a public comment process will necessarily be a part of the peer review, since the public will be commenting on the draft EIS that incorporates the draft highly influential scientific assessment.

A necessary component of effective public participation will be posting of a draft charge to the peer reviewers and providing an opportunity for the public to comment on the draft charge. Any peer review will be influenced to a great degree by the specific wording of the charge to the reviewers. The charge is one of the most critical parts of the peer review process, and public participation with regard to the charge, and transparency in posting both the draft and final charge prior to the peer review, is needed for meaningful fulfillment of the public participation requirements. The preamble to the final OMB IQA peer review guidelines states that, in additional to providing the public with a means to comments on the peer review plan, "[i]n general, an agency conducting a peer review of a highly influential scientific assessment must ensure that the peer review process is transparent by making available to the public the written charge to the peer reviewers . . . ."[20] In addition, the public should have an opportunity to confirm that the charge contains the information required by the IQA guidelines to be provided to the peer reviewers with regard to the need for objectivity. The guidelines state:

> Peer reviewers shall be charged with reviewing scientific and technical matters, leaving policy determinations for the agency. Reviewers shall be informed of applicable access, objectivity, reproducibility and other quality standards under the Federal laws governing information access and quality.[21]

In explaining this requirement, the preamble to the final guidelines states:

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[19] 70 Fed. Reg. at 2676 2d col. (emphasis added).

[20] 70 Fed. Reg. at 2665.

[21] 70 Fed. Reg. at 2675.

> [T]he charge should make clear that the reviewers are not to provide advice on the policy (e.g., the amount of uncertainty that is acceptable or the amount of precaution that should be embedded in an analysis). Such considerations are the purview of the government.[22]

With regard to selection of the peer reviewers, the guidelines state that "[a]gencies shall consider requesting that the public, including scientific and professional societies, nominate potential reviewers."[23]

As an important accessory to the public participation requirements, the IQA peer review guidelines require that agencies publish their peer review agendas and detailed peer review plans, and that they "shall establish a mechanism for allowing the public to comment on the adequacy of the peer review plans. [And] [a]gencies shall consider public comments on peer review plans."[24]

IV. The Programmatic EIS must not incorporate any policy or "precautionary" bias or "worst case" scenarios, particularly with regard to assumptions regarding impacts of extraction and mitigation technologies still undergoing development and testing.

The Programmatic EIS will examine the need for amendments to BLM Resource Management Plans (RMPs). Although the Programmatic EIS is required under the Energy Policy Act of 2005, the federal actions that are the subject of the Programmatic EIS are RMP decisions on whether to include or exclude specific public lands as available in the future for possible oil shale or tar sands leasing.[25]

RMPs (also referred to as land use plans) are prepared pursuant to the Federal Land Policy and Management Act ("FLPMA").[26] The purposes of RMPs under FLPMA and its regulations are primarily to inventory resources and identify areas of critical environmental concern ("ACEC"s). RMPs must provide for management under principles of multiple use and sustained yield.

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[22] 70 Fed. Reg. at 2669 1st col. (footnote omitted). The statement that "[s]uch considerations are the purview of the government" is clearly a reference to any statutory discretion allowed an agency in making a final regulatory determination based on the scientific information or analysis; it does not in any way negate the requirements for "objectivity," "scientific integrity," and consideration of "reasonably foreseeable significant adverse effects" in the analysis informing a regulatory decision.

[23] *Id*. 1st col.

[24] 70 Fed. Reg. at 2676-77.

[25] Specific leasing decisions would be subject to further NEPA evaluation. Preparation of the current Programmatic EIS does not affect any existing R&D leases under which companies are developing and testing new oil shale and tar sands extractive technologies and environmental mitigation measures.

[26] 43 U.S.C.§§ 1711, 1712; 43 CFR §§ 1601.0-1 *et seq.*

An EIS is considered part of the RMP process.[27] The CEQ NEPA regulations specify how to handle situations where information on impacts is incomplete or unavailable.[28] That portion of the NEPA regulations was revised in 1986 to delete the requirement for a "worst case" analysis of impacts; now the regulations require that even low-probability but potentially catastrophic impacts must be supported by "credible scientific evidence."

As the Federal Register notice for this DEIS scoping process indicates, new technologies for the extraction of oil shale and tar sands petrochemicals are still in the development and testing phase. Leases have already been issued for the developing and testing of such technologies. Issues of environmental impacts and commercial viability cannot be settled until such development and testing is complete and assessed. Until that time, impacts from such technologies cannot be considered supported by "credible scientific evidence," and decision-making on the RMPs under consideration cannot proceed based on "worst case", biased, or scientifically unsupported reasoning. There might be sufficient information available on surface mining techniques and impacts to support exclusion decisions, but exclusions from oil shale or tar sands leasing made on such basis should be explicitly limited to such techniques.[29] In particular, RMP decisions for exclusions cannot be made on the basis of a policy of precaution, but must be objective and based on scientific evidence. (As discussed above, this is a point made more explicit in the IQA peer review guidance.) Once a particular technology is asserted to be proven effective and commercially viable and a company seeks a lease, further NEPA review will be undertaken to evaluate the impacts of that particular technology.

In view of the incomplete or unavailable scientific information concerning new extraction and mitigation technologies, the principal objective of the RMP review should be the delineation and assessment of the oil shale and tar sands resources and other resources that might be affected by yet-undeveloped technologies, such as surface and groundwater units and linkages, soil types and permeability, and habitat for various animal and avian species. Such a detailed and refined inventory can then serve as the basis for further NEPA reviews of any lease applications.

V. Volatility in Energy Markets, and now the Regulatory Landscape, Have Hindered the Commercial Development of Oil Shale

One of the largest challenges to the development of oil shale is volatility in the oil markets. The Congressional Research Service reports, "The recent spike in crude oil price has once again stirred interest in oil shale. As in the past, however, the rapid runup in prices (to a high of $145/barrel) was soon followed by a rapid precipitous drop in prices [to levels as low as $60/barrel]…such volatility discourages the investment in contingent resources such as oil shale."[30] CRS concluded, "While OPEC cuts oil output to prop up prices, the major and super-

27 43 CFR § 1601.0-6.
28 42 CFR § 1502.22.
29 See 43 CFR § 1610.7-1.
30 CRS Report RL 34748, *Developments in Oil Shale*, at 29, November 17, 2008.

major oil companies continue to use an oil price of $32/barrel for their business planning. In this climate, the development of oil shale seems difficult indeed."[31]

While BLM cannot reduce volatility in the oil markets, it can reduce volatility in the regulatory landscape. Regulatory certainty is necessary to motivate oil shale developers to make the massive investments required to bring production of oil shale to commercial levels. BLM has failed to provide oil shale developers with this certainty.

Not even three years after publishing the final Programmatic EIS, BLM is now seeking to "take a hard look" at whether it was appropriate to make the land in Colorado, Utah, and Wyoming available for oil shale development. BLM has not provided oil shale developers with ample time to demonstrate whether oil shale is commercially viable. It is only half way through the term for the 10-year leases to conduct research, development, and demonstration; and BLM has precipitously declared that oil shale is not commercially viable. Oil shale will not receive the necessary investments until developers are provided with the regulatory certainty to justify the investments. The mandates in the Energy Policy Act of 2005 require BLM to continue to pursue and support the development of oil shale.

VI. Oil Shale: the Path to Energy Independence

In the Energy Policy Act of 2005, Congress declared "that it is the policy of the United States that— (1) United States oil shale, tar sands, and other unconventional fuels are strategically important domestic resources that should be developed to reduce the growing dependence of the United States on politically and economically unstable sources of foreign oil imports."[32] It is estimated by the Department of Energy that the United States has over 6 trillion barrels of oil shale.[33] The Department of Energy's Office of Naval Petroleum and Oil Shale Reserves estimates that the United States has 1.38 trillion barrels of oil shale are recoverable.[34] The Rand Corporation offers a more conservative estimate of 800 billion barrels of recoverable oil shale, which is still more than triple the proven oil reserves of Saudi Arabia.[35] At current US demand for oil, the "800 billion barrels of recoverable resources would last for more than 400 years."[36] Furthermore, since BLM has published the final Programmatic EIS in 2008, the United

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31 *Id*.

32 Energy Policy Act of 2005, P.L. 109–58, § 369

33 U.S. Department of Energy, Office of Petroleum Reserves, *Fact Sheet: U.S. Oil Shale Resources*, available at http://www.fossil.energy.gov/programs/reserves/npr/Oil_Shale_Resource_Fact_Sheet.pdf

34 U.S. Department of Energy, Office of Naval Petroleum and Oil Shale, *National Strategic Unconventional Resource Model: A Decision Support System*¸ April 2006, available at http://fossil.energy.gov/programs/reserves/npr/NSURM_Documentation.pdf

35 James T. Bartis *et al.*, *Oil Shale Development in the United States: Prospects and Policy Issues*, Rand Corporation, page IX (2005).

36 *Id.*

States Geological Survey (USGS) has upgraded its in-place assessment oil shale reserves by 50 percent in the Green River Formation in the Piceance Basin of Western Colorado.[37]

On March 30, 2011, the Obama Administration set the benchmark to reduce oil imports by one-third over the next decade.[38] The United States has enormous oil shale reserves that could help the United States to achieve the Administration's goal to reduce foreign oil imports. Undoubtedly, it will take time and large investments to make oil shale commercially viable and competitive. The Congressional Research Service advises, "The expectation of initial high unit costs should be weighed against the offset in demand for imported products and the effect of lowering price that competition brings." As experienced with the oil sands in Canada, the initial development costs are extremely high.[39] However, as production increases, the cost of production drastically decreases.[40]

Moreover, as recognized by the BLM's Federal Register notice,[41] technological advances for the extraction of oil shale lie just over the horizon. Rand Corporation concluded, "Advances in thermally conductive in-situ conversion may enable shale-derived oil to be competitive with crude oil prices below $40 per barrel."[42] With a firm commitment to Oil Shale development, oil shale will occupy a central role in the national energy agenda.

VII. Conclusion

In a recent speech by President Obama on the United States energy security, the President declared, "We've known about the dangers of our oil dependence for decades. . . We cannot keep going from shock when gas prices go up to trance when they go back down -- we go back to doing the same things we've been doing until the next time there's a price spike, and then we're shocked again. We can't rush to propose action when gas prices are high and then hit the snooze button when they fall again…our best opportunities to enhance our energy security can be found in our own backyard."[43]

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[37] U.S. Geological Survey, *An Assessment of In-Place Oil Shale Resources in the Green River Formation, Piceance Basin, Colorado,* page 1, August 2010, available at http://pubs.usgs.gov/dds/dds-069/dds-069-y/REPORTS/69_Y_CH_1.pdf

[38] President Barack Obama, *Remarks by the President on America's Energy Security,* March 30, 2011, http://www.whitehouse.gov/the-press-office/2011/03/30/remarks-president-americas-energy-security

[39] "Production costs in Alberta's oil sands declined by as much as 80 percent between 1980 and 2003. Oil shale cost reductions of 40 to 50 percent could occur as lessons from first of a kind facilities are learned and applied." U.S. Department of Energy, Office of Petroleum Reserves**,** *Fact Sheet: U.S. Oil Shale Economics,* available at http://fossil.energy.gov/programs/reserves/npr/Oil_Shale_Economics_Fact_Sheet1.pdf

[40] *Id.*

[41] 76 FR 21003, at 21004, April 14, 2011.

[42] James T. Bartis *et al., Oil Shale Development in the United States: Prospects and Policy Issues,* Rand Corporation, page 53 (2005).

[43] President Barack Obama, *Remarks by the President on America's Energy Security,* March 30, 2011, http://www.whitehouse.gov/the-press-office/2011/03/30/remarks-president-americas-energy-security

Oil shale development and investment has suffered from the very same boom-bust cycle as described by President Obama. Historically, when oil prices are high, oil shale is the solution for the United States energy needs. But once the price of oil falls again, oil shale is written off as "not at present a proven commercially-viable source." The United States cannot once again "hit the snooze button" on oil shale. The United States needs a sustained commitment to oil shale development— a commitment provided by Congress in the Energy Policy Act of 2005— in order for it to become economically viable.

For the foregoing reasons, CRE recommends that BLM remains firmly committed to the development of oil shale by not reducing the land allocated for oil shale. CRE also urges BLM to adhere to IQA guidelines in assessing the viability of oil shale development. If you need further information regarding any issue discussed in this comment letter, please do not hesitate to contact me at secretary1@mbsdc.com or (202) 265-2383.

Respectfully Submitted,

Jim Tozzi
Member, Board of Advisors