

James G. Spehar  
Former Mayor, Grand Junction, CO  
Past President, Colorado Municipal League

Testimony on:  
“American Jobs and Energy Security: Domestic Oil Shale the Status of Research, Regulation and Roadblocks”

Presented to the U.S. House Subcommittee on Energy and Mineral Resources  
August 24, 2011  
Grand Junction, CO

This written submission and my oral comments before the U.S. House of Representatives Subcommittee on Energy and Mineral Resources at its field hearing on “American Jobs and Energy Security: Domestic Oil Shale the status of Research, Regulation and Roadblocks” in Grand Junction, on August 24, 2011, are informed by several perspectives.

They include coming from a six-generation western Colorado family that originally emigrated to the Western Slope to work in extraction industries; former responsibilities as an elected Mesa County Commissioner and as a city council member and Mayor of Grand Junction; work with other communities as a past president of the Colorado Municipal League and former board member of Associated Governments of NW Colorado; work within state government on growth and development issues and as a former member of the Colorado Economic Development Commission; and helping direct local economic development efforts as a past board member of the Mesa County Economic Development Commission (now the Grand Junction Economic Partnership).

It also results from 15 years of consulting work on growth, energy and economic development, and job creation issues w/local governments, their regional associations, state agencies, multi-national energy companies and others. That includes six years of contract work on oil shale and community issues for one of the early lessees in the federal government’s oil shale research, demonstration and development program. I have worked with the Colorado Department of Labor and Employment on workforce issues in rural Colorado and helped directed a collaborative multi-county effort on regional socio-economic issues that included portions of NW Colorado that will be directly impacted should a commercial oil shale industry develop.

Given that background, I applaud the efforts of Congress and the subcommittee to investigate the role an emerging oil shale industry might play in job creation and providing the “home grown” energy resources to fuel employment growth and to help move our nation toward energy self-sufficiency. The purpose of my oral and written testimony is to make certain other important parts of that equation are given equal consideration as we move forward.

Whether you oppose or support oil shale development, it's irresponsible not to be planning now for potential development and the possible impacts.

That examination of impacts demands more than just a science project. But current research is focused primarily on technology, not the broad range of social, economic, environmental and other community impacts that will result if the technical research is ultimately successful.

Just as the industry desires certainty in what's required of it, so do communities deserve that same degree of certainty as to what the expectations will be of their local governments, non profits and other agencies, schools, hospitals, for infrastructure and services associated with the development of this industry.

Similarly, this added use on public and private lands, its water and power requirements and potential impacts to air quality, will impact many existing multi-million dollar industries that also provide important jobs, including but not limited to agriculture and other water users, tourism and outdoor recreation, even natural gas and other existing extractive industries. We should be careful that we are not merely swapping jobs and that new employment does not come at the expense of existing job providers in already active and sustaining industries important to the economic well-being of the region.

The BLM's own 2008 Programmatic Environmental Impact Statement (PEIS) acknowledges the lack of then-current information available regarding many of these issues. Subsequent analysis has served both to inform and confuse matters identified as uncertainties in the PEIS and the current review and potential update of that document ordered by Interior Secretary Ken Salazar will hopefully fill in some of the blanks.

For several years now, I've been part of an informal NW Colorado group of current and former local elected officials, wildlife and agriculture interests, water organizations and others who've been working with our congressional delegation since the summer of 2009 to see that these sorts of impacts are quantified and addressed prior to any commercial leasing. We most recently met with Representative Tipton in February of this year and hope to continue these discussions with him, with Senator Mark Udall and with Senator Michael Bennet.

The Colorado delegation, on our behalf, has twice forwarded to the DOI our request that an independent study of cumulative impacts of oil shale development be completed prior to any commercial leasing. (See Attachment A).

A written reply to Sen. Mark Udall dated March 24, 2011, sent on behalf of BLM Director Bob Abbey, indicates that sort of investigation will be part of the PEIS review now in progress and is a welcome next step in the process of prudently planning for the possibility of an oil shale industry. (See Attachment B).

The Associated Governments of NW Colorado, a regional association of municipal and county governments in the region, a few years ago commissioned a cumulative impacts study of development and population growth in the same geographic area that is ground zero for this potential industry. (See Attachment C.)

That study, entitled “Northwest Colorado Socio-Economic Analysis and Forecasts “ and released in 2008, likely already needs updating but provides an excellent outline of the sort of information local communities need in order to plan intelligently if they are to host commercial oil shale development, whether a decade or more from now or in some shorter time frame.

There is still time to answer the important outstanding questions regarding how local communities expected to host oil shale development can manage associated impacts. As outlined in the attached report “Secure Fuels from Domestic Resources: The Continuing Evolution of America’s Oil Shale and Tar Sands Industries” prepared by INTEK, Inc., for the U.S. Department of Energy Office of Petroleum Reserves and released in September, 2010, all of the players active in oil shale development envision multi-year research and development scenarios. In recent months and in various settings, major players in this region have estimated time frames of 7-12 years for development of commercial-scale technologies. (See Attachment D).

If that time frame is shorter, or if some sort of new crisis in the Middle East or elsewhere accelerates the schedule, it’s even more imperative that this sort of additional information over and above the “science project” technology be made available and appropriate steps to mitigate impacts be put in place before commercial leasing and development take place.

Here are some of the questions that need to be answered in the context of the subject matter of this hearing:

- (1) Should development of an oil shale industry be subsidized either directly, via government funding or product purchases, as has been done in previous cycles, or indirectly, via reduced royalty rates as anticipated in the Energy Policy Act of 2005?
- (2) Should large-scale leasing of federal lands for commercial oil shale production proceed, as anticipated in the Energy Policy Act of 2005, prior to successful demonstration of commercial-scale processes for production of fuel from oil shale?
- (3) How can the federal, state and local governments, the industry, and other partners make certain impacts of oil shale development do not fall unreasonably on current taxpayers and not negatively impact important sustaining industries?
- (4) What role does the federal government play in maintaining realistic expectations of companies involved in oil shale research and development and in creating realistic expectations on the part of a public justifiably anxious about U.S. energy security and concerned about job creation.?

It is important to remember the lessons of the past, when understandable haste and federal subsidies fostered the oil shale boom of the late 1970s-early 1980s. Thousands of workers followed that boom to northwestern Colorado, overwhelming infrastructure, taxing services, and artificially inflated the economy. Just a few years later came the infamous “Black Sunday” when thousands lost their jobs, communities became ghost towns, and a decade or more of struggle began to regain economic balance.

Helpful in dealing with that previous boom and bust was the Oil Shale Trust Fund, designed to assist industry in helping communities front the up-front impact costs that come prior to receipt of tax revenues. That fund, filled by advance payments against future royalties, also helped provide a somewhat softer landing after the bust, maintaining payments on infrastructure built in anticipation of a long-term industry and funding economic development aimed at diversifying jobs and industry in the region.

There's been no talk of such a trust fund as we again look at what Rep. Tipton cites as the potential for 350,000 new jobs in a new oil shale industry.

Equally concerning is the provision in the Energy Policy Act of 2005 cutting initial oil shale royalty rates by more than half. As subcommittee members know, slightly less than half of royalty payments are returned to states and local governments where the activity occurs. Reducing those rates diminishes the ability of local communities to provide infrastructure and services a new industry finds necessary to create and sustain jobs.

Congress needs to understand that direct correlation and become an active partner with the states and their local governments in dealing with impacts should a new oil shale industry come to fruition.

Now we are hearing calls for large-scale commercial leasing as another incentive for kick-starting the industry. Two mayors of the region's largest cities raised important questions regarding that issue just a few days ago on the op ed page of the Grand Junction Daily Sentinel. "If there is no proven commercial process, wouldn't this foster speculation," they asked. "Should research be successful, won't it then be easier to make certain lease rates reflect the appropriate value to the public?"

Equally concerning is the lack of comprehensive analysis of the impact of this potential new industry on existing jobs and industry. Air quality, water demands, land use changes have the potential to, as the BLM states in the operative PEIS for oil shale research and development, to cause the region to morph from its traditional agricultural, tourism, hunting and fishing and recreation economies, all of which provide important sustaining jobs, to an industrial zone.

As an example, water issues alone raise enough issues to demand a thorough examination before rushing development of an oil shale industry. Estimates of potential water demands vary by a factor of three, from 120,000 acre feet per year to nearly 380,000 acre feet. Even if industry utilizes water it already owns, exercising those senior rights could have a dramatic effect on junior users in other industries.

If additional water is necessary, it comes from a Colorado River Basin some say is already at maximum capacity. Others who count on some unallocated water in the river say that, even at the lowest estimated demand for oil shale, that would take up half of Colorado's allocation of the water remaining in the Colorado River.

No one likes to consider these sorts of things as a "worst case" scenario when we are all in favor of good jobs, energy independence and a more promising future.

Seeking definitive answers to these important questions should not be seen as a roadblock to oil shale development but instead as necessary strategic planning to insure a viable and sustainable future.

But prudence would seem to dictate we develop a “no regrets” strategy that, as much as humanly possible, avoids the well-documented mistakes of the past, and assures local communities are prepared and adequately funded to deal with associated impacts of oil shale development.

In conclusion, I would urge this subcommittee to expand its agenda to also include examination of the steps necessary to make certain the entire range of questions concerning development of a successful oil shale industry that might contribute to both job creation and energy independence. Only in that manner can we all be assured that oil shale will be a welcome and meaningful component our energy security and create new jobs without compromising existing economic drivers and our treasured way of life in northwest Colorado, northeast Utah and southeast Wyoming.

**Congress of the United States**  
**Washington, DC 20515**

November 18, 2009

Honorable Ken Salazar  
Secretary  
Department of the Interior  
849 C Street, NW  
Washington, DC 20240

Dear Secretary Salazar,

We are writing concerning the need to objectively answer critical questions about potential impacts of large scale commercial oil shale development on water, communities and local economies before proceeding with commercial development. The Bureau of Land Management (BLM) concluded in its September 2008 programmatic environmental impact statement on oil shale that the agency lacks the information necessary to meet Congress' mandate in the Energy Policy Act of 2005 that "development should be conducted in an environmentally sound manner, using practices that minimize impacts." In advance of sufficient information to manage risks, commercial development of oil shale could irreparably change local lives, local economies and the environment.

The most recent evaluation of the viability of oil shale technologies was prepared in 1980 by the Congressional Office of Technology Assessment. Despite BLM's attempt to address this deficit through the research, development and demonstration (RD&D) program, there are questions that need to be answered to bring necessary clarity regarding how industrial scale oil shale operations could impact the region and the nation – questions that cannot be answered by the current scale of research.

The best way to gain answers to critical questions is to proceed in an orderly fashion. That means allowing RD&D to be completed and the data analyzed prior to offering leases for commercial development. It would also be advantageous for RD&D programs to be supplemented with an independent evaluation conducted by the National Academies of Science (NAS). The NAS study should investigate, among other things,

- The status of oil shale extraction technologies;
- The likely positive and negative implications of the various technologies for the production of kerogen from oil shale resources;
- The cumulative energy and water inputs required to produce oil from shale, including a lifecycle assessment of greenhouse gas emissions produced;
- The cumulative economic and environmental impacts of commercial-scale oil shale production and associated energy infrastructure required for the commercial application of the various oil shale technologies currently in operation or under development on energy and water resources;

- The timeframe for viable large-scale commercial oil shale production and events that should serve as a precursor to commercial leasing, such as development of commercially viable and environmentally safe technologies;
- Workforce capacity requirements associated with commercial-scale development; and
- Means of ensuring a fair return to the public from the production of oil shale on public land.

We applaud your recent decision to seek answers concerning the effects of oil shale development on water quantity and quality, other environmental effects and socioeconomic factors. It is our view that sound RD&D, along with an independent NAS evaluation, offers a judicious approach to the prospect of commercial development of oil shale. The scope and funding of an independent analysis by the NAS would provide a scientific base for future decisions and we hope you will join us in supporting that effort.

Sincerely,



Mark Udall  
U.S. Senator



Michael Bennet  
U.S. Senator



John T. Salazar  
Member of Congress

# United States Senate

WASHINGTON, DC 20510

December 17, 2010

Honorable Ken Salazar  
Secretary  
Department of the Interior  
1849 C Street NW  
Washington, DC 20240

Dear Secretary Salazar:

We are writing to follow up on our request of December 19, 2009, concerning the need to objectively answer critical questions about impacts of large scale commercial oil shale development on water, wildlife, communities and local economies. We have once again heard from a diverse group of local constituents in northwest Colorado who continue to seek a comprehensive study of those potential impacts prior to consideration of any commercial oil shale development. Those constituents include local government officials, ranchers, water and wildlife interests and others.

As we noted in our previous request, the Bureau of Land Management (BLM) concluded in their September 2008 Programmatic Environmental Impact Statement on oil shale that the agency lacked information to meet the congressional mandate in the Energy Policy Act of 2005 that “development be conducted in an environmentally sound manner using practices that minimize impacts.” In addition, on November 29<sup>th</sup> 2010, the General Accountability Office released a report on the potential impacts to water of oil shale development, finding that oil shale development could have significant impacts on the quantity and quality of water resources and recommending that the Department of the Interior initiate water-related research with DOE and state agencies involved in water regulations.<sup>[1]</sup>

While we and our constituents are appreciative of your efforts in the second round of research, development and demonstration (RD&D) leasing to require that information developed on those leases is more accessible and timely, the fact remains that the RD&D program is focused more on technology and processes than on potential impacts on land, water and people. That additional information is critical to responsible planning by local and state governments and federal and state agencies.

As we requested in our 2009 letter, we ask that RD&D be completed and the data analyzed prior to considering offering leases for commercial development. We also continue to believe that information from the RD&D program must be supplemented by an independent evaluation conducted by the National Academy of Science (NAS) that investigates, among other things:

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<sup>[1]</sup> GAO-11-35.

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- Workforce capacity requirements associated with commercial scale development and the potential impacts of assimilating those workers and their families; and
- Means of ensuring a fair return to the public from the production of oil shale on public land.

Given the lack of current relevant information, any move toward commercial leasing should occur only in concert with a thorough comprehensive analysis of cumulative impacts that would provide the Department of Interior, other relevant federal and state agencies, and local and state governments the means to make informed planning decisions.

We and our constituents recognize the challenges of funding such a study in the current economic and budgetary climate. Therefore, we ask only that you adopt now a policy requiring this type of analysis be completed prior to implementing any commercial oil shale leasing program. They and we pledge to work with you toward scoping and seeking funding for this independent study by NAS as economic conditions improve.

Only by proceeding slowly and judiciously and with current comprehensive information can we be assured that not just technological questions but the broader issues of water needs and impacts, socio-economic impacts, environmental impacts and other impacts can be planned for and mitigated in a manner that leaves local communities and surrounding lands both healthy and prosperous and diminishes the chances they will be devastated by another boom and bust oil shale cycle.

We look forward to your positive response and to working with you and your department on this important issue.

Sincerely,



Senator Mark Udall



Senator Michael F. Bennet

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While we and our constituents are appreciative of your efforts in the second round of research, development and demonstration (RD&D) leasing to require that information developed on those leases is more accessible and timely, the fact remains that the RD&D program is focused more on technology and processes than on potential impacts on land, water and people. That additional information is critical to responsible planning by local and state governments and federal and state agencies.

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We look forward to your positive response and to working with you and your department on this important issue.

Sincerely,



Senator Mark Udall



Senator Michael F. Bennet



United States Department of the Interior  
BUREAU OF LAND MANAGEMENT  
Washington, D.C. 20240  
<http://www.blm.gov>



**MAR 24 2011**

The Honorable Mark Udall  
United States Senate  
Washington, DC 20510

Dear Senator Udall:

Thank you for your December 16, 2010, letter to Secretary of the Interior Ken Salazar regarding oil shale development in Colorado. Secretary Salazar has asked me to respond to your letter.

I understand your concerns about how large-scale commercial oil shale development might affect water, wildlife, communities, and local economies. Any oil shale development must include careful analysis and consultation with all affected stakeholders.

Your letter discusses the Bureau of Land Management (BLM) 2008 Programmatic Environmental Impact Statement (PEIS) for oil shale. In 2008, the BLM published a Final PEIS and Record of Decision that amended eight land-use plans in Utah, Colorado, and Wyoming to make nearly two million acres of public lands available for potential commercial oil shale development.

The BLM is initiating a process to take a fresh look at the 2008 decisions. The public planning process will allow the BLM to update its assessment of what public lands are best suited for oil shale development. The public will be invited in the planning process to submit their comments and concerns, and final land-use decisions will be made in light of any new information about potential resource needs and impacts, as well as any new technological innovations. The BLM is also initiating a public rulemaking process to consider, among other things, whether plans of development for commercial oil shale leases must include specific watershed and groundwater protection plans, airshed reviews, integrated waste-management plans, or environmental protection-and-mitigation plans.

Meanwhile, the Department and the BLM remain committed to a robust program of research and development. The BLM recently completed its review of three nominations for oil shale Research, Development, and Demonstration (RD&D) leases in Colorado and Utah. An Interdisciplinary Review Team, including representatives of the Governors of Colorado, Utah, and Wyoming, the Department of Energy, and the Colorado School of Mines, recommended that all three nominations be advanced. The BLM's Colorado and Utah offices will conduct National Environmental Policy Act reviews on the nominations, two of which are in Colorado and one of which is in Utah. The analyses may take up to 18 months to complete, and will help chart an informed path for oil shale resources in the West.

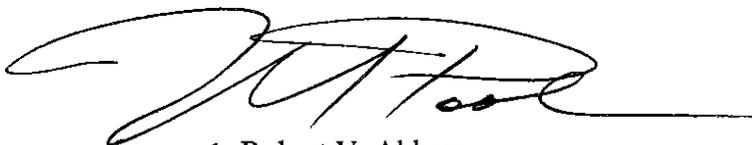
This second round of 10-year leases would help answer fundamental questions about the feasibility of oil shale technologies, their impacts on the environment and local communities, and the use of water — all important issues cited in your letter. This RD&D round contains substantial diligence requirements, including specific timeframes for submitting plans of development, obtaining state and local permits, developing infrastructure, and submitting quarterly reports.

After obtaining sufficient information from the leases, the data will be available for evaluation by independent entities, such as the National Academy of Sciences, to help provide a scientific basis for future decisions on development. I appreciate and will consider your offer to help seek funding for such a study in the future.

Your letter restates your 2009 request that the BLM complete the RD&D process and analyze the data before considering offering leases for commercial development. Before issuing leases on any nominated parcels, the BLM must comply with NEPA to ensure consideration of possible environmental consequences from commercial development, as well as any appropriate mitigation. During the NEPA process, the public would have an opportunity for input. As always, the BLM is committed to working with affected stakeholders, including state and local governments, Tribes, and the public when considering energy issues on public lands.

Thank you for your interest in and support of responsible oil shale development. A similar letter has been sent to Senator Michael Bennet. If you have further questions or concerns, please contact me at 202-208-3801.

Sincerely,



Robert V. Abbey  
Director