Is Poor Federal Stewardship Threatening the American Energy Renaissance?*

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Abstract

Government “stewardship” of energy and mineral resources on federal lands—almost one third of US territory—has historically underperformed and is now demonstrably underserving the nation. Current federal land management policies are largely out of step with the nation's requirements and expectations of a stable resource base of oil and gas (and minerals) and an adherence to proper multiple land use practices. Most of our onshore oil and gas are currently produced from private and some state lands, indicating access to federal lands through leasing has been largely chocked off. There have been steady decreases in the number of federal leases, total acres leased, and exploration permits issued for onshore and offshore oil and gas in the past thirty years. Another example of poor federal stewardship is the practice of “withdrawals” of public land that preclude resource development under existing mineral laws, meaning that the practice eliminates future development on those lands for some period of time, irrespective of the occurrence of valuable mineral resources on those lands. Withdrawals are initiated by very few government officials (sometimes one), can be political, may involve disproportionately large acreages, and are usually irreversible. Large withdrawals that are irreversible are among the worst examples of stewardship on federal lands because they are decided without regard to the occurrence of unique geologic deposits, banning all future development of those resources. Withdrawing large tracts that contain key energy or mineral resources has the potential to create artificial shortages, setting up the need to import those resources, possibly from adversaries. A critical question regarding the cumulative effect (and threat) of ongoing federal land withdrawal is: has the government already removed so much land from energy and mineral exploration and development that it poses a serious threat to the long-term resource availability for our nation? Policymakers at all levels of government need to quickly find alternatives to inefficient federal control of vast tracts of lands in western states—such as helping to enable the states themselves to effectively manage the lands in their best interest and that of the nation.
Is Poor Federal Stewardship Threatening the American Energy Renaissance?

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Federal Stewardship “Elevator Brief”

• Declining trend in federal leasing by successive administrations

• Negative trends in oil and gas leases on all federal lands over the past 30 years

• Percentage of onshore oil and gas production on federal (versus non-federal) lands is sharply decreasing, esp. in western states

• Access to offshore for exploration and leasing is being chocked off

• American energy renaissance is being threatened long term

• Progress toward “energy independence” in this decade or the next is not a federal priority—the question is why not?

• Americans being cheated out of revenue without federal leasing
Lucas Gusher at Spindletop, January 10, 1901. First Texas gusher, beginning of federal “stewardship” of energy

Source: AAPG
Key Questions Regarding Federal Stewardship

• **What** is meant by federal “stewardship” —how defined?

• **Why** is stewardship of energy resources so important?

• What is current **impact** of federal stewardship on energy resources?
  • Is the American “energy renaissance” being threatened?

• **Implications** of today’s stewardship practices on future production?

• **Opportunities** to expand “energy renaissance”. What must happen?

• **Analysis** of this Issue begs for attention. Americans deserve highest and best use and maximum revenues (rentals and royalties) ....and a greater chance at energy independence. We deserve to have a full “federal partner” and we do NOT! How do states handle resources?
Federal and Indian Lands Ownership

U.S. federal and Indian lands

Federal lands agency jurisdiction
- Bureau of Indian Affairs
- Bureau of Land Management
- Bureau of Reclamation
- Department of Defense
- Forest Service
- Fish and Wildlife Service
- National Parks Service
- Tennessee Valley Authority
- other
Federal and Indian Lands Ownership With Alaska and Hawaii

- Department of Defense
- Fish and Wildlife Service
- Forest Service
- National Park Service
- Tennessee Valley Authority
- Other agencies
What is Stewardship?

- ....Is an ethic that embodies responsible planning and management of resources—in this case, “energy” resources.

- ....also includes mineral resources—which are no less important, and would merit a separate presentation—beginning with The Mining Law of 1872!

- ...It is about the disposition of all resources on federal lands...and it extends beyond federal lands, therefore it is a true mix of responsibilities!

The concept of stewardship is also applicable to the environment, economics, health, property, and information issues.
What is Federal Stewardship?

• Federal “Stewardship” is the administration of federally-owned lands by the executive or legislative branches, or judicial rulings that otherwise affect their access and use.

• Federal regulations and executive actions and congressional actions (laws) can impact energy resource development everywhere.

• Therefore, Federal “stewardship” of energy resources can extend into the state and private domains, via regulations but most concerning impacts are mainly on federal lands.
Federal and Indian Lands Ownership With Alaska and Hawaii

- Department of Defense
- Fish and Wildlife Service
- Forest Service
- National Park Service
- Tennessee Valley Authority
- Other agencies
WHY is stewardship important 100+ years after Spindletop?
Because the U.S. “Energy Renaissance” Driven by the “Shale Revolution” Looks Like This!

U.S. oil and natural gas production is increasing as a result of technological innovation.

**U.S. Crude Oil Production**
(millions of barrels per day 1970-2015)

**U.S. Natural Gas Marketed**
(billions cubic feet per day 1970-2015)

Note: Bars in black show EIA’s Short-term Energy Outlook forecast.
Source: EIA.
U.S. shale gas production

Sources: EIA derived from state administrative data collected by DrillingInfo Inc. Data are through November 2014 and represent EIA’s official shale gas estimates, but are not survey data. State abbreviations indicate primary state(s).
Shale resources remain the dominant source of U.S. natural gas production growth

Comparison of U.S. dry natural gas production (trillion cubic feet) and projections (billion cubic feet per day) from 1990 to 2040. The chart shows the growth in production from various sources, with shale gas and tight oil plays projected to dominate the future production landscape.

History and projections for different types of natural gas production:
- Lower 48 offshore
- Other lower 48 onshore
- Tight gas
- Coalbed methane
- Shale gas and tight oil plays

The data is from the EIA, Annual Energy Outlook 2015 Reference case.
And Poor Federal Stewardship Will Not Sustain the U.S. “Energy Renaissance”—Especially Because of.....

• Federal Permitting, Leasing, and Access Issues
  – Further restrictions of access, permitting/leasing—multiple fed
  – Sharp increases in royalty rates for oil and gas leases—Interior
  – Prohibitive arctic drilling regulations—multiple fed

• “Blizzard” of federal regulations pending 2015, 2016
  – Tougher blanket hydraulic fracking regulations—multiple fed
  – Restrictive methane emissions standards—EPA
  – Conflicting ozone standards—EPA

• Hidden “Secret” of Federal Land Withdrawals
  – Continuation of unwarranted withdrawals of large acreage containing energy and mineral resources—Executive/Congress
  – 40th Anniversary of Landmark Reporting on Federal Withdrawals
Shale Basin Plays in Lower 48...Many Are on Federal Lands
What Will Be the Impact of Stewardship on Energy Development on Federal and Indian Lands
Impact of Stewardship on Oil Produced From Federal vs. Private and State Lands
Percent Change FY2010-2014

- FY2011:友善 vs. -10%
- FY2012:友善 vs. -17%
- FY2013:友善 vs. -15%
- FY2014:友善 vs. -10%

友善 Lands: 9%, 33%, 61%, 89%
Crude Oil Production on Federal vs. Non-Federal Lands FY2010-2014

Source: Federal data obtained from ONRR Statistics, http://www.onrr.gov (using sales year data). Non-federal from EIA. Figure created by CRS.
Impact of Stewardship on Natural Gas Produced From Federal vs. Private and State Lands

Percent Change FY2010-2014

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<th>Federal Lands</th>
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<td>-10%</td>
</tr>
<tr>
<td>FY2012</td>
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<tr>
<td>FY2013</td>
<td>29%</td>
<td>-25%</td>
</tr>
<tr>
<td>FY2014</td>
<td>37%</td>
<td>-31%</td>
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</tbody>
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Natural Gas Production on Federal vs Non-Federal Lands
FY2010-2014

Source: Federal data obtained from ONRR Statistics, http://www.onrr.gov (using sales year data). Figure created by CRS.
Impact on Crude Oil Production on Federal and Indian Lands, FY 2013-14

- Pacific Federal Offshore: -1
- CA: -343
- NV: -21
- MT: -103
- UT: 2,321
- CO: 487
- NM: 7,985
- OK: 12
- TX: -145
- LA: 874
- Gulf of Mexico Federal Offshore: 25,898 thousand barrels

Legend:
- 1,001 to 25,898 (5)
- >0 to 1,000 (3)
- no change (22)
- <0 to -100 (18)
- -101 to -874 (4)

EIA
Impact on Natural Gas Production on Federal and Indian Lands, FY 2013-14

The map illustrates the impact on natural gas production in various states of the United States. The states are color-coded to indicate the change in billion cubic feet (state/area count) for natural gas production:

- **Blue** (11 to 100) - (5) states
- **Light Blue** (>0 to 10) - (4) states
- **Beige** (no change) - (25) states
- **Orange** (<0 to -10) - (16) states
- **Red** (-11 to -117) - (8) states

Key states and regions shown include:
- Pacific Federal Offshore
- Gulf of Mexico Federal Offshore
- Alaska and Hawaii (AK, HI)

The map highlights specific changes in production for each state, with some states showing an increase and others a decrease.
Impact in Coal Production on Federal and Indian Lands, FY 2013-14

[Map showing coal production by state/area with color codes: 501 to 3,317 thousand short tons, >0 to 500 thousand short tons, no change, <0 to -500 thousand short tons, -501 to -1,887 thousand short tons.]
Is the Future of the U.S. Energy Renaissance Being Threatened by Poor Federal Stewardship?
Number of Onshore BLM Leases Issued By Each Administration 1981 to Present —80 percent reduction!

IER INSTITUTE FOR ENERGY RESEARCH

Percent Change Onshore Oil and Gas Production on Federal vs Non-Federal Lands during 2009-2013 —Unrealistic!

Source: API
Offshore Undiscovered Technically Recoverable Federal Oil and Gas Lease Areas — Inaccessible!

87% of federal offshore acreage is off limits to development.
Trends in Oil and Gas Leases on All Federal Lands — Unsustainable!

New Leases on Federal Lands FY1988-2014

Total New Leases Issued During the Year

Total Number Leases in Effect

Total Acres Leased

Source: IER
Average Number Days Needed for a BLM Exploration Permit
—Inexcusable!

- FY2005-FY2009: 205 days
- FY2009-FY2014: 240 days

[Chart showing data from the Institute for Energy Research]
Time Needed to Process a Permit to Drill—Federal vs States—This....is poor federal stewardship!
Net Negative Effect of Stewardship on Fossil Fuel Production on Federal Lands FY2003-2013 (trillion BTU)

IER INSTITUTE FOR ENERGY RESEARCH
Crude Oil and Gas Production At Historic Record Levels Only Because of State and Private Land Production!

U.S. oil and natural gas production is increasing as a result of technological innovation.

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**U.S. Natural Gas Marketed**  
(billions cubic feet per day 1970-2015)

Note: Bars in black show EIA’s Short-term Energy Outlook forecast.  
Source: EIA.
Poor and Misguided Stewardship Does Threaten Energy Renaissance—and is Taking Aim at the Public Trust!
Implications of Current Federal Stewardship on an Expanding Energy Renaissance.....What Must Change?

• Declining trend in federal leasing by successive administrations must be reversed!

• Percentage of onshore oil and gas production on federal (versus non-federal) lands must be increased!

• Access to offshore undiscovered technically recoverable federal oil and gas must be increased for exploration and leasing!

• Negative trends in oil and gas leases on all federal lands over the past 30 years is unsustainable and must be reversed!

• Progress toward “energy independence” in the next decade or sooner is not a federal priority—this mindset must change!

• Americans are being cheated out of revenue from non-leasing!
Summary of Poor Federal Stewardship That Will NOT Sustain the American Energy Renaissance

• Restrictions of permitting, leasing, and access to onshore and offshore federal lands

• Hidden “secret” of continuing federal land withdrawals

• “Blizzard” of federal regulations (over-regulation) pending for 2015, 2016, and beyond...including recent EPA Clean Power Plan
Federal Hydraulic Fracking Regulations—As An Example

Regulation/oversight of fracking needs to remain at the state level—should NOT be “one size fits all” because:

– Geology of oil and gas varies locally or regionally within specific geological basins within a state or multi-state area

– Regulators with local geological expertise are best qualified to oversee unique requirements for local hydraulic fracturing

– Hydraulic fracking is constantly evolving based on scientific and technical advances—often faster than regulators can respond

– For example, “waterless” fracturing fluids and wastewater reuse that reduce local water consumption are already in use in many areas

Source: AAPG
Federal Land Withdrawals—As Another Example

• Hidden “Secret” of Federal Land Withdrawals
  – Continuation of unwarranted withdrawals of large, sometimes enormous acreages containing unknown quantities of important energy and mineral resources...the worst example of federal “stewardship”
  
  – Executive has taken over Congressional responsibility and involvement, sometimes withdrawals enacted by only a very few high-level individuals

  – 40th anniversary of landmark reporting by BLM insiders on stunning amounts of federal land withdrawals without public comment, consent, or resource evaluation!
Sustained American Energy Renaissance means more responsible federal stewardship or, eventual state control of federal lands....

....rather than gambling with our energy independence!
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