

# Mineral Development Done Right

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Prior to her service with the State, Lynne was an Assistant Professor at the University of Wyoming, College of Law, teaching Oil and Gas Law, Mining Law, Agriculture Law, Constitutional Law and Legal Writing. After graduating from the University of Wyoming, College of Law with honors in 1991, Lynne clerked for the Honorable Wade Brorby on the U.S. Tenth Circuit Court of Appeals and was an associate at Holland and Hart in Cheyenne.

## Most Wyomingites know what it is like

to reap the benefits of a “boom” when mineral development is robust and suffer through the “busts” when mineral development slumps. Boom and bust cycles define much of our State’s economic history. Remember the bumper stickers that read: “Lord, Grant Me Another Boom and I Promise Not to Mess This One Up”? Have we kept our promise? Lately, yes. How? Through informed engagement and the discipline to keep one fundamental goal at the forefront of policy and appropriation decisions: Keep Wyoming’s mineral economy vital and healthy, and use the proceeds from that economy to create the capacity for a better business and living environment for the advantage of future generations.

Wyoming’s government, academic and private sector leaders have proven they can exert noteworthy influence and positively guide the course of mineral development. However, this influence does not simply manifest itself by virtue of Wyoming being blessed with abundant mineral deposits. Purposeful achievement in the mineral development arena requires persistent effort to (1) understand Wyoming’s role in the broader energy economy, (2) comprehend and promote future as well as current mineral development technologies, and (3) be knowledgeable about the impacts (both positive and negative) of mineral development on the values important to Wyoming





# Informed Engagement and a Sustained Commitment to Build Capacity for the Future

By Lynne J. Boomgaarden

citizens.

Though slowed somewhat by the recent recession, we live in a time of intense and increasing world energy demand. Energy demand is predicted to be 30% higher by 2040 due to growing population and a rising GDP.<sup>1</sup> When you look at Wyoming's contribution to the U.S. domestic energy supply, it is clear Wyoming is a player – a significant player. See Figure 1. “Of the top 10 energy exporters to the U.S. (which supply a total of 35 quadrillion Btu's), Wyoming is the leader, providing 30% of this energy. Coal accounts for 80% of the energy Wyoming exports to the U.S.”<sup>2</sup> Wyoming is at its best when Wyoming leaders understand this dynamic and use Wyoming's comparative advantage in the national energy arena to inform the timing and scope of key appropriations and policy decisions and to exercise Wyoming's relative clout in its discussion, debate and negotiation with industry, other states and the federal government.

Wyoming is also at its best when its leaders recognize the potential cost of putting all Wyoming's mineral development eggs in the current technology basket. We need only to look to China and Australia to find examples of where new energy technologies are being explored and funded more aggressively than in the United States. This is particularly true with commercial-scale coal to gas/liquid

technologies and underground coal gasification. In recent years Wyoming leaders have developed strong ties with private, academic and governmental leaders in China and Australia in order to optimize opportunities for collaboration and technology sharing. This international give and take will continue to be essential if we are to keep abreast of new technologies and associated economic development opportunities with the aim of diversifying and enhancing the Wyoming mineral economy.

Wyoming citizens value their rural quality of life, abundant with open space, wildlife and outdoor recreation opportunities, while at the same time, enjoying a relatively high standard of living, low unemployment and low individual tax burdens thanks to the State's abundance of minerals and strong energy economy. The juxtaposition of these two, often competing dynamics is at the heart of much of Wyoming's public discourse and policy making. Here again, Wyoming is at its best when its leaders facilitate informed debate on these issues and send a clear message that Wyoming is open for business and welcomes new mineral development and new technologies so long as the development occurs in a responsible manner and negative impacts are mitigated and/or offset.

It is within this framework of informed engagement toward the



goal of optimizing Wyoming's present mineral economy for the sustained benefit of future generations, that Wyoming has accomplished its most notable mineral development achievements. These achievements often are the direct result of enhanced mineral revenues.<sup>3</sup> Without attempting here to describe the precise source(s) of funding or scope of every program, the following examples illustrate important achievements in capitalizing on Wyoming's comparative mineral wealth for the immediate and future benefit of Wyoming citizens:

- Increased funding for the development of Wyoming's second largest industry – travel and tourism. <http://www.wyomingofficeoftourism.gov/>
- Funding for the Wyoming Wildlife and Natural Resources Trust (WWNRT). A December 2011 report prepared by the University of Wyoming, Department of Agricultural and Applied Economics, the Ruckelshaus Institute of Environment and Natural Resources, and The Trust for Public Land, concluded that every \$100,000 spent on WWNRT projects supports 2.9 good paying jobs, and every \$1 invested in the WWNRT returns \$4 in economic value in natural resource goods and services. <http://wwnrt.state.wy.us/>
- Improved public employee pay necessary to retain high quality personnel. [http://www.wyoming.gov/loc/06012011\\_1/Pages/default.aspx](http://www.wyoming.gov/loc/06012011_1/Pages/default.aspx)
- University of Wyoming, School of Energy Resources funding. State funds are being leveraged at a rate of 5:1.<sup>4</sup> <http://www.uwo.edu/ser/>
- \$1.5 million in matching funds for UW's Reclamation and Restoration Center – a program that helps industry with creative, effective, and efficient reclamation of mineral development activities. <http://www.uwo.edu/wrrc/>
- Increased local government capital construction project funding.
  - o Mineral Royalty Grant Funding – over \$575 million between biennial fiscal years 2005-2011
    - [http://lands.state.wy.us/index.php?option=com\\_content&view=article&id=306&Itemid=29](http://lands.state.wy.us/index.php?option=com_content&view=article&id=306&Itemid=29)
  - o Wyoming Business Council, Business Ready Communities Program Funding
    - <http://www.wyomingbusiness.org/program/business-ready-community-program/1246>
- Hathaway Scholarship Program funding. This program provides scholarships of up to \$1,600 per semester for high school graduates who meet certain GPA, ACT score and high school curriculum requirements, and who go to college in the 307 area code. <http://www.hathaway scholarships.com/>
- NCAR Supercomputer Facility funding. The \$70 million National Center for Atmospheric Research (NCAR) Wyoming Supercomputing Center (NWSC) is a world-class facility for high performance scientific computing in the atmospheric and related geosciences. Funding partners included NCAR, the State of Wyoming, the University of Wyoming, Cheyenne LEADS, Wyoming Business Council, Cheyenne Light, Fuel & Power, UCAR, and NCAR's principal funding source, the National Science Foundation. <http://nws.cucar.edu/>
- Increased Permanent Mineral Trust Fund funding 74% from 2003-2010, thus creating opportunity for improved future returns on investment for use during periods of less robust mineral development. <http://treasurer.state.wy.us/investmentsbank.asp#invest>
- Support for the Wyoming Pipeline Authority and the Wyoming Infrastructure Authority, quasi-governmental entities that promote the development of pipeline and electric transmission infrastructure necessary to optimize mineral development and export opportunities in Wyoming. <http://www.wyopipeline.com/>; <http://wyia.org/>

Because we place such high value on quality of life as it relates to use and enjoyment of open space, including Wyoming's abundant wildlife, it would be inappropriate to declare success based solely on how many additional mineral dollars Wyoming has invested. We also should expect our leaders to use Wyoming's robust mineral development activity as a platform to develop and implement policy intended to ensure that future generations won't pay too high of environmental or cultural cost for today's mineral development. The following examples illustrate our measure of success in this regard:





- Cutting edge sage grouse and sage grouse habitat conservation policy, accepted by the U.S. Fish & Wildlife Service and the Bureau of Land Management as key in preventing the sage grouse from being listed as an endangered species. <http://gf.state.wy.us/web2011/wildlife-1000382.aspx>
- Rules requiring oil and gas companies to disclose constituents contained in fluids used to hydraulically fracture oil and gas producing formations to increase production of oil and gas. These rules also require prior approval for the injection of volatile organic compounds or any petroleum distillates for well stimulation purposes. Rules and Regulations of the Wyoming Oil & Gas Conservation Commission, Chapter 3, Section 45. <http://soswy.state.wy.us/Rules/RULES/7928.pdf>

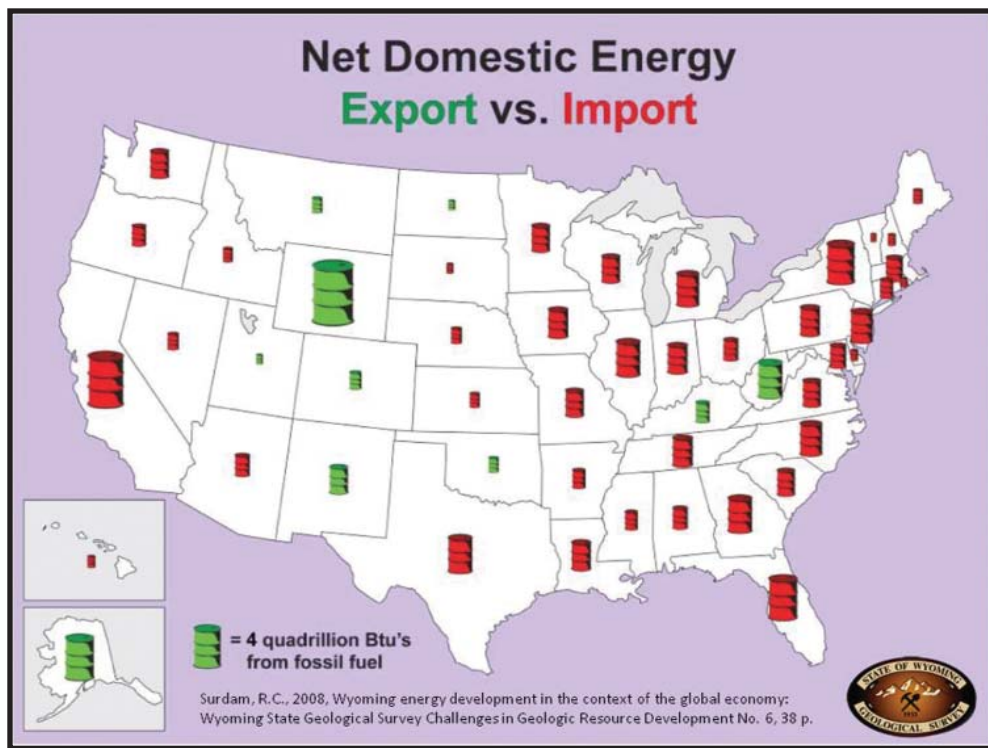


Figure 1

- Consolidation of state trust lands through strategic exchanges, sales and purchases, to improve asset values and habitat.
- Lease stipulations to protect important wildlife habitat and cultural resources on state trust lands. [http://lands.state.wy.us/index.php?option=com\\_content&view=article&id=308&Itemid=18](http://lands.state.wy.us/index.php?option=com_content&view=article&id=308&Itemid=18)
- Carbon storage laws to define relative surface and subsurface property rights and establish environmental protection regulations applicable to emerging carbon storage technologies. Wyo. Stat. §§ 35-11-313 et seq.; 30-5-501.
- Wyoming Oil & Gas Conservation Commission oversight to limit venting of marketable CO<sub>2</sub> needed for enhanced oil recovery development in Wyoming and elsewhere.
- Improved drilling and well completion emission controls to protect air quality. <http://deq.state.wy.us/aqd/oilgas.asp>

- Participation in the Jonah Interagency Office, created to provide overall management of on-site monitoring and off-site mitigation activities in the Jonah gas field using a \$24.5 million monitoring and mitigation fund committed by EnCana Oil & Gas (USA), Inc. and BP America Production Company. <http://www.wy.blm.gov/jio-papo/>

Wyoming has earned bragging rights in the mineral development arena through the informed engagement of Wyoming leaders and their commitment the past several years to invest returns from today's mineral economy in programs and policies that will build capacity for the future. We should not, however, get carried away patting ourselves on the back just yet. It is far easier to remain engaged and focused on providing advantages for future generations when the mineral economy is robust. True success ultimately will be measured by whether Wyoming leaders can sustain the discipline needed to optimize future returns when the going gets rougher.\*

*Endnotes continued on page 60*

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### ENDNOTES

1. ExxonMobil, 2012 The Outlook for Energy: A View to 2040, p.6.
2. University of Wyoming Carbon Management Institute, Progress report for WY-CUSP Phase I – Characterization of the premier storage reservoirs and geological CO2 storage site in Wyoming (October 27, 2011).
3. According to the Wyoming Consensus Revenue Estimating Group (CREG), for the past decade severance tax collections have accounted for at least 20% of state general fund revenues. Mineral severance taxes and federal mineral royalties accounted for approximately 51.4% of the funds available for appropriation during the FY 2011-2012 biennium.
4. University of Wyoming, Science and Technology for Wyoming's Future, (October 2010).

## EMERITUS ATTORNEY PROGRAM

In the spirit of community service, the Wyoming State Bar implemented an Emeritus Program to encourage experienced attorneys to volunteer their legal skills and experience to help the growing number of Wyoming citizens who cannot afford legal help.

The Emeritus Program is designed to facilitate pro bono services for those lawyers who wish to serve as an unpaid Emeritus Attorney. In many cases, Emeritus Attorneys will simply be providing legal advice and assistance in a variety of civil and family law matters, including preparing petitions and other legal documents.

[www.wyomingbar.org](http://www.wyomingbar.org)

## Information Connection, continued from page 59

### ENDNOTES

1. Eric Knorr & Galen Gruman, What Cloud Computing Really Means (April 7, 2008), <http://www.infoworld.com/print/34031>.
2. Stephanie L. Kimbro, VIRTUAL LAW PRACTICE: HOW TO DELIVER LEGAL SERVICES ONLINE 39 (2010).
3. For a list, see Knorr & Gruman, supra note 1, at 2-3.
4. See, Jonathan Strickland, How Cloud Computing Works (April 8, 2008), [www.computer.howstuffworks.com/cloud-computing/cloud-computing.htm](http://www.computer.howstuffworks.com/cloud-computing/cloud-computing.htm).
5. Dropbox, <http://www.dropbox.com> (last visited Jan. 5, 2012).
6. For a description of Dropbox and other cloud storage sites, see Sig Ueland, 15 Cloud Storage Sites, PRACTICAL ECOMMERCE: INSIGHTS FOR ONLINE MERCHANTS (August 10, 2011), <http://www.practicalecommerce.com/articles/2969-15-Cloud-Storage-Sites>.
7. See, How Google Storage Works, <http://support.google.com/docs/bin/answer.py?hl=en&answer=39567> (last visited Jan. 5, 2012).
8. Box.net, <http://www.box.net> (last visited Jan. 5, 2012).
9. Id. See also, Nic Vargus, Make Box.net Your Premiere Cloud Storage Service, MACLIFE, Jan. 2012 at 90.
10. What is iCloud? <http://www.apple.com/icloud/what-is.html> (last visited Jan. 5, 2012).
11. Sugarsync, <https://www.sugarsync.com> (last visited Jan. 5, 2012).
12. Carbonite, <http://www.carbonite.com> (last visited Jan. 5, 2012).
13. Ueland, supra note 6. See also Online File Storage, ONLINE STORAGE SERVICES REVIEW 2012, <http://online-storage-service-review.toptenreviews.com/index.html> (last visited Jan. 5, 2012).
14. Susan A. Berson, Safe in the Cloud? Online Service Risks Need Care and Coverage, ABA JOURNAL, Nov. 1, 2011 at 28, available at [http://www.abajournal.com/magazine/article/safe\\_in\\_the\\_cloud\\_online\\_service\\_risks\\_need\\_care\\_and\\_coverage](http://www.abajournal.com/magazine/article/safe_in_the_cloud_online_service_risks_need_care_and_coverage).
15. Sharon D. Nelson, John W. Simek, and Michael C. Maschke, THE 2011 SOLO AND SMALL FIRM LEGAL TECHNOLOGY GUIDE 125 (2011).
16. Id. at 126.
17. Rachel M. Zahorsky, Experts Offer Tips for Safe Flying in the Cloud, ABA JOURNAL (April 13, 2011), [http://www.abajournal.com/news/article/experts\\_offer\\_tips\\_for\\_safe\\_flying\\_in\\_the\\_cloud](http://www.abajournal.com/news/article/experts_offer_tips_for_safe_flying_in_the_cloud). This brief piece lists several questions attorneys ought to ask of cloud providers. Often the answers to these questions can be found on the service providers' web sites. For instance, Amazon's Simple Storage Service, which is used by enterprises and other storage services, offers extensive information about data protection on its site. See Amazon Simple Storage Service (S3), <http://aws.amazon.com/s3>.
18. Berson, supra note 14, at 2.