The Energy Wealth of Indian Nations

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INTRODUCTION

Economists have long sought to explain why some nations are rich while others are poor. Although the recipe for growth remains a matter of debate, most agree that secure property rights and a stable rule of law are necessary ingredients for economic growth. Property rights provide incentives to generate wealth, encourage resource stewardship, and form the basis for market exchanges. A stable rule of law promotes long-term investment by reducing the cost of engaging in market exchange and encouraging capital accumulation.

The importance of the institutions of property rights and the rule of law is evident in American Indian reservations. Crossing into reservations, especially in the western United States, reveals islands of poverty in a sea of wealth. Per capita income for American Indians living on reservations is about half that of other United States citizens. Thirty-nine percent of Indians live in poverty, compared with nine percent of white Americans, and
Indian unemployment is almost four times higher than the United States average.  

This Article discusses the effects of the institutions and regulations that restrict energy development on tribal lands. It posits that economic development could be realized in Indian Country if tribes and individual Indians had more secure property rights and greater ability to control their own natural resources. The Article then proceeds by providing a background of reservation land tenure and the institutions governing tribal energy development. Next, the Article describes existing energy development on Indian reservations and examines the untapped energy potential on Indian lands. The discussion section of this Article suggests that the institutions governing Indian lands, along with the additional regulations that apply to tribal energy development, act to suppress energy-related economic growth on Indian lands by limiting opportunities for tribes to capitalize on their energy resources. This Article concludes by suggesting that in order to develop their natural resources, tribes living on Indian reservations must be granted the same rights and institutions as those living elsewhere.

I. THE POTENTIAL FOR DEVELOPMENT AND THE OBSTACLES IN THE PATH

A. Land of Plenty: Abundance of Energy Resources on American Indian Property

Low incomes exist on Indian reservations despite the fact that many reservations contain considerable natural resources, particularly energy resources. Reservations contain almost 30% of the nation’s coal reserves west of the Mississippi, 50% of potential uranium reserves, and 20% of known oil and gas reserves. The Department of the Interior (DOI) estimates that 15 million acres of potential energy and mineral resources are undeveloped on Indian lands while only 2.1 million acres of Indian land are being tapped for their energy resources. According to one study, the Crow
Reservation in Montana contains coal and other assets valued at nearly $27 billion, approximately $3.3 million per tribal member, making the tribe one of the largest coal owners in the world.\(^9\) Despite such energy wealth, the tribe’s annual rate of return on coal assets is a mere 0.01%.\(^10\) The tribe has reported unemployment rates as high as 78%.\(^11\) Similarly, the Fort Berthold reservation in North Dakota sits atop one of the nation’s largest oil and gas plays, but the development of resources on the reservation is slower than off the reservation.\(^12\) Simply put, energy resources on Indian lands are substantial. The potential wealth that could be derived from such resources presents an opportunity for significant economic growth for both American Indians and the United States economy.\(^13\)

**B. Economic Growth in American Indian Communities**

Given this natural resource wealth, why do Indian reservations remain poor? This Article posits that the answer has to do with the structure of the economic and legal institutions on reservations.\(^14\) Abundant natural resources are neither a necessary nor sufficient condition for economic growth. What matters for economic growth, both in general and on reservations, are institutions that determine whether human capital, physical capital, and natural


\(^10\) Id.

\(^11\) Id.

\(^12\) Sierra Crane-Murdoch, The Other Bakken Boom: A Tribe Atop the Nation’s Biggest Oil Play, PERC Case Study (Nov. 28, 2012), http://perc.org/articles/other-bakken-boom, archived at http://perma.cc/J43-9TAD.

\(^13\) Opportunities to develop renewable energy resources also exist on Indian reservations. See, e.g., Resources, ENERGY.GOV, http://energy.gov/indianenergy/resources, archived at http://perma.cc/YHR2-HZ3Y (last visited Oct. 7, 2014) (citing National Renewable Energy Laboratory (NREL) and the Department of the Interior) (estimating that, in addition to conventional fossil fuel energy resources, Indian lands have the potential to produce 14 billion megawatt-hours (MWh) rural utility-scale solar resources, 1.1 billion MWh wind resources, 7 million MWh hydropower resources, 5 million MWh geothermal (hydrothermal) resources, and 4 million MWh biomass (solids) resources).

\(^14\) We use the term “institutions” following Douglass C. North, Institutions, 5 J. ECON. PERSP. 97, 97 (1991) (“Institutions are the humanly devised constraints that structure political, economic, and social interaction.”).
resources are used efficiently.° In their search for the factors that promote economic growth on reservations, authors Cornell and Kalt explained that “a tribe’s resources can be wasted or go untapped unless that tribe can establish an incentive environment that channels them into productive ends.”°° Similarly, authors Acemoglu, Johnson, and Robinson concluded that “countries with better ‘institutions,’ more secure property rights, and less distortionary policies will invest more in physical and human capital, and will use these factors more efficiently to achieve a greater level of income.”°°

The complex history of the federal government’s relationship with American Indians has largely denied tribes the institutional attributes that promote widespread economic growth.°° Crossing a reservation boundary often means entering an entirely different set of legal institutions, including property rights and the rule of law. Outside reservations, local, county, state, and federal governments provide relatively stable property rights through law enforcement and judicial institutions conducive to economic growth.°° Inside reservations, however, legal jurisdictions and land tenure can vary widely, resulting in a complicated mosaic of property ownership. This mosaic consists of lands held in trust by the United States government on behalf of tribes, lands held in trust by the federal government on behalf of individual Indians, and fee-simple lands located within reservation boundaries.°°

15. Id. See Cornell & Kalt, supra note 9, at 467 (“Generous resource endowments, human capital, and access to financial capital will be virtually useless if tribes . . . lack the institutional structures necessary to maintain a hospitable environment for human and financial investment.”). See also Ian Keay & Cherie Metcalf, Property Rights, Resource Access, and Long-Run Growth, 8 J. OF EMPIRICAL LEGAL STUD. 792, 829 (2011) (examining the effect of secure aboriginal property rights to natural resources on long-run macroeconomic growth in Canada).

16. Cornell & Kalt, supra note 9, at 446.


18. See Anderson & Parker, supra note 3, at 641. The history of the federal government trusteeship of Indian lands is discussed in greater detail later in the article.

19. Id.

Navigating this complex system of land ownership makes both energy development and economic growth difficult on many reservations. In addition, the federal government’s trust authority over Indian lands has often prevented tribes from fully capitalizing on their natural resource wealth. Authors Anderson and Lueck, for example, found that agricultural productivity on Indian lands held in trust by the federal government was significantly less than on similar fee-simple lands on reservations.

Regarding energy resources, at least four federal agencies are involved in the execution of any energy lease on tribal lands. Until the 1970s, tribes could not negotiate the terms for energy leases on their lands, and to this day, the Bureau of Indian Affairs (BIA) remains responsible for approving and overseeing energy development on Indian trust land. Not only does the BIA’s trust authority raise the cost of energy development on Indian lands, but it also has a long history of not living up to its fiduciary responsibility of managing Indian trust funds, as evidenced by the 1996 class-action suit Cobell v. Salazar. In Cobell, petitioners alleged that the United States government incorrectly accounted for income from trust assets belonging to Indian landowners. The case settled in 2009 with the federal government agreeing to pay individual Indians and tribes $3.4 billion.

To make matters worse, tribes often have difficulty attracting investment for energy development on reservations if they misuse their sovereign powers to tax or employ eminent domain.


23. Grogan, supra note 5, at 18–22. The four agencies involved with decision-making, revenue flows, and oversight of energy development on Indian lands include at least the Bureau of Indian Affairs, the Bureau of Land Management, the Office of Natural Resources Revenue (formerly the Minerals Management Service), and Office of the Special Trustee for American Indians. A fifth federal agency, the Office of Surface Mining, is involved when coal resources are extracted on Indian lands.

24. Id. at 13.


27. See David D. Haddock, Foreseeing Confiscation by the Sovereign: Lessons from the American West, in THE POLITICAL ECONOMY OF THE AMERICAN WEST (Terry L. Anderson & Peter J. Hill eds., 1994). See also David
sovereignty can be an asset when it places control over energy development in the hands of tribal members because it ensures that the tribe has a larger stake in the outcome. However, tribal sovereignty can also be a liability if it makes the rule of law on reservations less certain. 28 Tribal governments, like all sovereign nations, face the dilemma of whether to promote institutions that create a climate for investment based on the rule of law or to pursue policies with short-term benefits by taking profits and property rights from investors.

Several court cases involving takings of property by tribes have caused investment concerns throughout Indian Country. 29 If investors believe tribal governments could abuse their sovereign powers to take a larger share of profits from economic development projects, such abuse can stifle private investment on reservations. 30 These reputational effects may extend to tribal

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28. Id.

29. The Jicarilla Apache tribe in Arizona, for example, faced this dilemma when it began negotiating with petroleum companies to explore and produce oil and gas on its reservation. The contracts provided for royalty payments to the tribe of 12.5%. In 1976, after the companies had made significant investments in infrastructure, the tribe added a severance tax, taking the total rate to nearly 20%. The companies took the tribe to court, contending that only state and local authorities had the ability to tax mineral rights on Indian reservations. The companies eventually lost the argument when the U.S. Supreme Court affirmed the tribe’s sovereign power to tax. See generally Merrion v. Jicarilla Apache Tribe, 455 U.S. 130 (1982).

30. The Hualapai tribe recently became embroiled in a dispute after contracting with a developer to invest nearly $30 million to build a tourist attraction known as the “Skywalk.” The clear, horseshoe-shaped glass walkway, jutting 70 feet out from the rim of the Grand Canyon, opened in 2007 and by 2013 had attracted 1.4 million visitors with the potential to generate an estimated $100 million over the next two decades. Arguing that the developer did not deliver on his end of the bargain, the tribe used its eminent domain power to take the property without compensation. The developer took the tribe to federal court where in 2013, U.S. District Judge David Campbell ruled in favor of the developer saying that the tribe had “clearly waived its sovereign immunity” and that its legal arguments were “odd,” “nonsensical,” and “wholly unconvincing.” Louise Benson, chairwoman of the tribe when the Skywalk contract was signed, said current tribal leaders are “giving the Hualapai a terrible reputation that will injure the tribe for years.” See Dennis Wagner, Grand Canyon Skywalk Judgment Could Devastate Tribe, USA TODAY, (Feb. 19, 2013, 8:11 AM), http://www.usatoday.com/story/news/nation/2013/02/19/grand-canyon-skywalk-judgment-tribe/1929813/, archived at http://perma.cc/J7PV-7HCN.
efforts to develop energy resources, which often require significant amounts of private investment from outside the reservation.

II. RESERVATION LAND TENURE AND ENERGY DEVELOPMENT

Understanding the evolution of reservation land tenure is important for understanding resource extraction on Indian lands. A brief history of American Indian land ownership and its impact on resource extraction helps explain the complicated relationship that exists between tribes and the federal government.

A. The Evolution of the Federal Trust Doctrine

The doctrine of federal trust responsibility that defines the relationship between the federal government and tribes traces its roots to Supreme Court decisions in the early 1800s. Chief Justice Marshall described tribes as “domestic dependent nations,” unable to negotiate treaties with foreign nations, but implying that they retained the power to govern themselves. Marshall went on to state that Indians “are in a state of pupilage” and characterized their relationship with the United States as resembling “that of a ward to his guardian.” From this conception, the federal government became the trustee for Indian lands. This trust relationship between Indians and the federal government, which continues today, extends to surface and subsurface resources. Therefore, although tribal sovereignty implied the right for Indians to govern themselves, it did not grant tribes complete autonomy to devise their own property rights and governance structures.

31. The following three cases, often referred to as the Marshall Trilogy, established the doctrine of federal trust responsibility: Johnson v. McIntosh, 21 U.S. (8 Wheat.) 543, 573 (1823) (finding that Indians have rights to occupy lands but do not have rights to own land); Cherokee Nation v. Georgia, 30 U.S. 1 (1831) (denying the Cherokee Nation’s claim that they were a foreign nation); Worcester v. Georgia, 31 U.S. (6 Pet.) 515 (1832) (finding that the Cherokee Nation was a distinct community within which the laws of the State of Georgia could have no force).

32. Cherokee Nation, 30 U.S. at 17

33. Id.

34. See generally Judith V. Royster, Mineral Development in Indian Country: The Evolution of Tribal Control over Mineral Resources, 29 TULSA L. J. 541, 545 (1993) (noting that “the surface and subsurface estates of Indian country may be unified in one owner or split, but the permutations are complex”).

35. See Judith V. Royster, Practical Sovereignty, Political Sovereignty, and the Indian Tribal Energy Development and Self-Determination Act, 12 LEWIS & CLARK L. REV. 1065, 1068–69 (2008); STEPHEN CORNELL & JOSEPH P. KALT, TWO APPROACHES TO ECONOMIC DEVELOPMENT ON AMERICAN INDIAN
centuries later, the trust doctrine requires any energy development taking place on tribal lands to be authorized by the federal government.36

The government’s characterization of Indians as “wards” was codified with the General Allotment Act of 1887, also known as the Dawes Act.37 Under the Act, many Indian lands were allotted to individual Indians, but the lands were held in trust until the Secretary of the Interior deemed the allottee “competent and capable of managing his or her own affairs.”38 Other lands were considered surplus land and opened to homesteading by non-Indians.39 Once Indian allottees were declared competent, their allotments were removed from federal trust restrictions and fee-simple title was granted.40 These titles gave owners the right to manage their land as they saw fit, including the right to sell the land.

The allotment era ended in 1934 with the passage of the Indian Reorganization Act (IRA).41 The Act virtually froze the remaining Indian lands in trust status for which fee-simple title had not been granted prior to 1934.42 Lands released from trusteeship prior to reorganization remain in fee-simple title, giving owners autonomy over land-use decisions within the limits of the law.43 Released lands can be sold, encumbered as collateral for loans, or leased for


36. See Royster, supra note 34, at 1074–81.
38. Burke Act of 1906, 34 Stat. 182 (amending § 6 of the General Allotment Act) (codified at 25 U.S.C. § 349). In 1917, allottees with less than one-half Indian blood were considered competent and were issued fee-simple titles to their lands, thereby removing the federal trust restrictions and allowing the allottee to sell the land. In 1920, however, this policy of automatically deeming allottees competent based on blood quantum was abolished. See Judith V. Royster, The Legacy of Allotment, 27 ARIZ. ST. L.J. 1, 11 (1995).
39. See Royster, supra note 38.
40. Id.
42. Grogan, supra note 5, at 11.
43. See Goetting & Ruppel, supra note 20 (describing how reservation land is owned).
energy development without the approval of the Secretary of the Interior. In contrast, individual trust lands and tribal trust lands are subject to BIA control. The BIA can grant or deny permission to lease or develop tribal resources. Individual and tribal trust lands cannot be sold and generally cannot be encumbered as collateral in the capital market. To compound the complexity, individual trust lands have often been passed in undivided interest to Indian heirs. After several generations, ownership can become so fractionated that hundreds of heirs exist, all of whom must agree on how land is used.

B. The Impact of Trusteeship on Energy Development

The combination of the Dawes Act, the IRA, and sales to non-Indian owners has left a complicated mosaic of land tenure on reservations including fee-simple, individual trust (also known as allotted), and tribal trust lands. This mosaic extends to the subsurface as well, where ownership of mineral rights occasionally differs from ownership of the surface. Across Indian Country,

44. See Grogan, supra note 5, at 11–12.
45. Id.
46. Id. at 15.
47. Id. at 11.
49. Id. The problem of fractionated Indian ownership increases exponentially with each passing generation, meaning the problem only gets worse as time passes. The federal recordkeeping costs also increase as fractionation continues. In 1992, the GAO estimated the BIA’s annual recordkeeping costs for twelve reservations with fractionated ownership were between $40 and $50 million. By 2010, these costs had increased to $246 million per year due to increased fractionation. See Michael A. Heller, The Tragedy of the Anticommons: Property in the Transition from Marx to Markets, 111 HARV. L. REV. 621, 685–87 (1998) (on the problem of the anticommons). Today, there are 156, 596 individual Indian land allotments and more than 4.7 million fractionated interests. See also Report of the Commission on Indian Trust Administration and Reform, DEP’T OF THE INTERIOR (Dec. 10, 2013), http://www.doi.gov/cobell/commission/upload/Report-of-the-Commission-on-Indian-Trust-Administration-and-Reform_FINAL_Approved-12-10-2013.pdf, archived at http://perma.cc/8R9S-UMQ6.
75% of surface rights are tribal trust land, 20 percent are individual trust land, and 5% are fee-simple land.51

Other federal statutes further complicate energy development on Indian trust lands. Under legislation passed in 1891, trust lands can be leased for grazing or mineral development.52 Initially, leasing required tribal consent for resource extraction, but Congress removed the consent requirement in 1919 for certain mineral leases in the West.53 Subsequently, energy development occurred on reservations through a leasing process controlled almost entirely by the federal government.54 The Indian Mineral Leasing Act (IMLA) of 1938 attempted to revitalize tribal governments by restoring some tribal control over energy development decisions.55 The Act established a standardized mineral leasing system and set minimum rates for rents and royalties.56 In practice, however, tribal control was limited. The IMLA granted tribes “the key right to consent before leasing could occur,” but allowed them “no say in the mining process once they authorized the leasing of their lands, and no right to certain cancellation” for breach of contract.57 Lease terms, including royalty amounts and other payments, were decided on and enforced by the BIA and the United States Geological Survey (USGS).58 Both agencies have consistently undervalued Indian


54. Grogan, supra note 5, at 13; MARJANE AMBLER, BREAKING THE IRON BONDS: INDIAN CONTROL OF ENERGY DEVELOPMENT 14 (1990). During the early era of energy development on Indian lands “the federal government was entirely in charge—of what resources could be developed, for what length of time, and under what circumstances.” See Royster, supra note 34, at 1072.

55. 25 U.S.C. § 396a2–396g.


57. Royster, supra note 34, at 565.

58. Id.
resources and, by all accounts, done a poor job of negotiating lease terms and collecting royalties on behalf of tribes.\textsuperscript{59}

During the 1970s and 1980s, tribes were afforded a more active role in energy development decisions on reservations. In 1982, for instance, the Indian Mineral Development Act (IMDA) was enacted, which eventually allowed tribes (but not individual allottees) to enter into any type of energy extraction agreement they desired.\textsuperscript{60} The Act also allowed lease terms and royalty amounts to be determined by tribes rather than the federal agencies.\textsuperscript{61} The IMDA represented a positive step towards tribal self-determination. Under the Act, tribes can negotiate leases, joint ventures, production sharing, or other agreements to develop resources.

C. Limitations on Tribal Autonomy in Energy Development

Today, IMDA agreements are the primary means by which tribes lease lands for energy development.\textsuperscript{63} Nonetheless, the federal trusteeship of Indian lands limits opportunities for tribal resource development and self-determination. The BIA and other federal agencies are required to oversee and approve all development agreements on Indian lands, adding layers of regulations and bureaucracy to tribal resource development projects.\textsuperscript{64} Tribes must acquire approval from the Secretary of the Interior for each specific lease or agreement, a process that is notoriously slow and cumbersome.\textsuperscript{65}

In 2005, Congress passed the Indian Tribal Energy Development and Self-Determination Act to further promote tribal

\textsuperscript{59} The American Indian Policy Review Commission concluded in 1977 that “the leases negotiated on behalf of Indians are among the poorest agreements ever made.” AM. INDIAN POLICY REVIEW COMM’N, 95TH CONG., 92–185, FINAL REP. 339 (1977). The federal government incorrectly accounted for income from trust assets belonging to Indian landowners, as examined in Cobell v. Salazar, 573 F.3d 808 (D.C. Cir. 2009).

\textsuperscript{60} 25 U.S.C. §§ 2101–2108 (2012). Final regulations to implement the IMDA were not promulgated until much later. The IMDA finally became effective in 1994. See Royster, supra note 34, at 584 n.281.

\textsuperscript{61} Royster, supra note 34, at 585–88.

\textsuperscript{62} Id.

\textsuperscript{63} Grogan, supra note 5, at 15.

\textsuperscript{64} Id.

\textsuperscript{65} See Royster, supra note 35, at 1077 n.69 (noting that an IMDA agreement on Fort Berthold took “over three years,” and citing testimony from a Crow member noting “an extremely slow BIA approval process”).
self-determination. The Act authorizes tribes to create Tribal Energy Resource Agreements (TERAs) that would afford tribes much greater control over energy development decisions. Once a TERA is approved, tribes would no longer need to receive separate approval for each business arrangement the tribes make in order to undertake resource development. Thus far, no tribe has entered into a TERA because, as one observer notes, “the rules and regulations around implementing a TERA are exceedingly complex.”

III. ENERGY DEVELOPMENT ON INDIAN RESERVATIONS

A. Available Energy Resources

American Indian reservations make up nearly 56 million acres, or about 2.3% of the total United States land base. The DOI estimates energy exploration and development has taken place on 2.1 million acres in Indian Country, while another 15 million acres with energy and mineral resources are undeveloped. In other words, 88% of Indian lands with energy or mineral potential remain untapped. Of course, energy resources are not evenly distributed among Indian lands. Reservations in the western United States contain most of the energy wealth of Indian nations. Energy tribes, as they are often called, “receive a significant portion of their income from energy minerals or . . . own substantial undeveloped reserves.”

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67. These business arrangements include “[a]ny permit, contract, joint venture, option, or other agreement that furthers any activity related to locating, producing, transporting, or marketing energy resources on tribal land.” 25 C.F.R. § 224.30 (2014).

68. Grogan, supra note 5, at 16.

69. The Department of the Interior is responsible for managing 56 million surface acres and 57 million acres of subsurface mineral estates. See Report of the Commission on Indian Trust Administration and Reform, supra note 49, at 16.

70. IED Hearing, supra note 8, at 42 (statement of Dr. Robert W. Middleton, Director, Office of Indian Energy and Economic Development, Office of the Assistant Secretary, Indian Affairs, U.S. Department of the Interior).

71. Grogan, supra note 5, at 29.

72. AMBLER, supra note 54, at 3.
Technological advancements in energy extraction add to the potential energy wealth of Indian nations. Extensive shale oil and gas reserves that lay beneath many reservations are now accessible with improvements in the hydraulic fracturing process. For instance, the Fort Berthold reservation sits above the Bakken oil field in North Dakota where in 2013 the USGS estimated there are 7.4 billion barrels of recoverable oil and 6.7 trillion cubic feet of technically recoverable natural gas. These estimates represent a

73. Grogan, supra note 5, at 29.
B. Challenges to Tapping into Available Resources

Several factors create challenges for the development of tribal energy resources. First, as explained above, federal trusteeship of Indian lands and other laws make it difficult for individual Indians or tribes to capitalize on their energy resources. Second, the uncertain structure of tribal legal institutions increases the cost and risk of doing business on reservations, making it difficult for tribes to attract outside investors. Finally, federal laws put decisions regarding land use and energy development in the hands of agencies that have a less than stellar record for managing resources in a way that maximizes the welfare of Indians.

The economic costs of these factors are felt particularly by the Three Affiliated Tribes on the Fort Berthold reservation. Although the tribes are located at the center of the boom in United States shale oil and gas development, Fort Berthold is largely missing out on the economic growth experienced beyond its borders. On Indian lands, companies must go through four federal agencies and forty-nine regulatory or administrative steps to acquire a permit to drill, compared with only four steps when drilling off reservation. The effect of these additional constraints on Indian lands is to raise the cost to energy companies of entering into resource development agreements with tribes or tribal members. When development does occur, it often generates a lower return for the tribes and individual Indians due to additional bureaucratic and regulatory obstacles. Lease payments to mineral owners are often higher off the reservation lands, leading many tribal members on Fort Berthold to question why they are not able to take full advantage of the energy boom occurring around them.

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75. Id. In addition to coal, oil, and natural gas, tribes also have significant sources of oil shale, uranium, copper, and rare earth minerals. The focus of this article, however, is on coal, oil, and natural gas.

76. For a discussion of the obstacles to Indian energy development, see Regan, supra note 21.

77. Id. at 13.

78. Id. at 11–13.


80. Id. at 3.

81. Id. at 2.

82. Id. See Grogan, supra note 5, at 18–28.

83. Crane-Murdoch, supra note 12, at 3.
It is not uncommon for several years to pass before the necessary approvals are acquired to begin energy development on Indian lands—a process that takes only a few months on private lands. At any time during the energy development process, a federal agency may demand more information or shut down development activity. Development projects on Indians lands are subject to significantly more constraints than similar projects on private lands. Simply completing title search requests results in delays from the BIA. Indians have waited six years to receive title search reports that other Americans can get in a few days.

Despite such challenges, energy resources are the largest revenue generator in Indian Country. On the Fort Berthold reservation alone, oil and gas development generated more than $40 million per month in revenue for the affiliated tribes in 2013. Throughout Indian Country, tribes and individual Indian mineral owners earned more than $932 million in royalty revenue from oil, gas, and minerals in 2013. The BIA expects Indian royalty income to exceed $1 billion in 2014. Nonetheless, these returns look paltry when compared with the potential value of energy resources that could be developed on Indian lands.

84. Grogan, supra note 5, at 20 n.31.
85. Id. at 26.
86. These constraints include environmental and cultural resource reviews, a $6,500 fee to the Bureau of Land Management for processing an application to drill on Indian lands, and a mismanaged system of land ownership records. See id.
91. Oil and Gas Outlook in Indian Country, supra note 88.
IV. POTENTIAL ENERGY RESOURCES ON INDIAN LAND

Like all estimates of unrecovered energy resources, precise measures of recoverable energy resources in Indian Country are a matter of debate for many reasons. First, technological advancements in resource extraction, such as recent improvement in the hydraulic fracturing process, can render previous estimates of unrecovered resources obsolete by increasing the amount of resources that are technically recoverable. Second, the value of unrecovered resources continually change as prices change, affecting whether the costs of exploration and development exceed the expected value of the resource. Third, estimates of mineral resources require knowledge about the quantity and quality of resources that can be several miles beneath the earth’s surface—knowledge that cannot be truly known until the resources are fully explored. These factors, combined with the fact that there is often less development and exploration on reservations, make it difficult to know what resource potential actually exists below Indian lands.

A. Estimation: How Much Energy is Available?

Such challenges, however, have not stopped the federal government from attempting to estimate the availability of Indian energy resources. A 1976 report by the General Accounting Office found that, although exact amounts of such resources are unknown, approximately 4.2 billion barrels of oil and about 17.5 trillion cubic feet of gas existed on 40 Indian reservations in 17 states. At the time, the USGS estimated that Indian oil and gas reserves amounted to three percent of the nation’s total reserves. The same USGS report also estimated coal resources on Indian land at 1,581 billion tons, or 7% to 13% of the nation’s coal reserves.

92. See Gaswirth et al., supra note 74 (representing a doubling and tripling of previous estimates of the oil and gas resources beneath the Bakken and Three Forks formations, respectively).

93. Government efforts to estimate Indian energy resources began in the 1970s along with federal policies of self-determination such as the Indian Mineral Development Act that allowed tribes more say in energy development decisions. Such policies, to the extent that they increased domestic energy production, were also consistent with national goals of energy independence in the wake of the 1973 oil embargo. See Royster, supra note 34, at 584.


95. Id. at 2.
resources.\textsuperscript{96} The report concluded that, given such resource wealth, “[m]ineral resources development on reservations can thus provide substantial income and employment opportunities to the Indians.”\textsuperscript{97}

The DOI has specific estimates of energy potential publicly available for several reservations.\textsuperscript{98} Although the reports were issued in the 1970s, and are therefore based on earlier understandings of the minerals beneath Indian lands, they illustrate the extent of energy wealth beneath Indian reservations. For example, the DOI concluded in 1975 that the Crow Reservation (13,260 enrolled tribal members) has 17 billion tons of coal and 40 million barrels of oil that remain undeveloped.\textsuperscript{99} According to a similar report, the neighboring Northern Cheyenne Reservation (10,500 enrolled tribal members) has even more: 23 billion tons of undeveloped coal and 270 million barrels of undeveloped oil—almost all of which remains undeveloped today.\textsuperscript{100}

B. Valuation: How Much is the Energy on Indian Lands Really Worth?

In 2008, the DOI estimated that Indian lands “contain over 5 billion barrels of oil, 37 trillion cubic feet of natural gas, and 53 billion tons of coal that are technically recoverable with current technologies.”\textsuperscript{101} The DOI stated that the combined value of these

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resources at that time was $875 billion.102 Using the latest census data, which estimates that there are 5.2 million people in the United States that self-identify as American Indian or Alaska Native alone or in combination with one or more other races,103 the per capita value of the energy wealth on Indian lands amounts to approximately $170,000.104 More recently, the DOI has reiterated similar estimates, asserting in 2012 that Indian lands have the potential to produce 5.35 billion barrels of oil, 37.7 trillion cubic feet of conventional natural gas, and 53 billion tons of coal.105

Using a recent spot price for coal in the Powder River Basin, the Crow Reservation’s coal reserve is worth $210 billion, and the Northern Cheyenne’s coal reserve is worth $284 billion.106 Given a recent spot price for West Texas Intermediate crude oil, the Crow Reservation’s oil reserves are worth $3.8 billion, and the Northern Cheyenne’s oil reserves are worth $25.9 billion.107 Both reservations have yet to develop significant amounts of their coal or oil resources.108 In 2009, the secretary of the Council of Energy Resource Tribes, a tribal energy consortium, estimated that at existing prices, the present-day value of energy resources on Indian

102. Id.


104. It is not clear from the DOI estimate how the $875 billion figure was derived or whether it is in present discounted value terms. If the per-capita calculations were limited to American Indians and Alaska Natives that reside in American Indian areas, then the per-capita value of energy resources on Indians lands would be much higher. The U.S. Census estimates approximately 1 million American Indians and Alaska Natives reside in Indian areas, suggesting a per-capita value of energy resources of approximately $875,000. See id. at 13–14.


106. Coal News and Markets Report, ENERGY INFO. ADMIN., http://www.eia.gov/coal/news_markets/archive/, archived at http://perma.cc/FC32-NPSR (last visited Oct. 7, 2014) (listing coal price of $12.35/ton as of Jan. 31, 2014). These values assume that each tribe’s energy reserves remain as they were at the time of the DOI’s original inventory. Although this assumption may not hold in many cases, tribes such as the Northern Cheyenne have yet to develop their coal reserves. See Cornell & Kalt, supra note 9 (estimating the Crow’s coal assets to be worth $27 billion using more recent estimates of resource availability from the Crow tribe).


108. Grogan, supra note 5, at 32, 36.
lands amounted to nearly $1.5 trillion. This estimate implies a potential per capita energy value of $290,000 for American Indians. This amount starkly contrasts with United States Census data estimating the per capita income of American Indians and Alaska Natives to be $16,964.

Although Indian lands contain tremendous energy wealth, most tribes are not generating significant returns on their assets. In 2013, energy resources earned tribal mineral owners $932 million in royalty revenue. Using the more recent estimate of $1.5 trillion worth of undeveloped energy resources on Indian lands, the current annual return is less than seven ten-thousandths of a percent on tribal energy assets.

V. ENERGY REGULATIONS AND TRIBAL ENERGY DEVELOPMENT

In addition to the complicated bureaucracy that oversees tribal energy projects, other local, state, and federal regulations can make it difficult for many tribes to capitalize on their vast energy resources. In 2013, the Crow tribe in Montana received approval from the BIA to lease 1.4 billion tons of coal on their reservation to a Wyoming energy company. The project has the potential to generate a source of long-term revenue for the tribe, but a host of regulations are making the reliability of this revenue source uncertain. The Environmental Protection Agency (EPA) announced plans in 2013 to issue strict limits on emissions from new coal-fired power plants, and the agency is planning more regulations for existing coal plants. The regulations are
considered tough enough to make it difficult—and possibly cost-prohibitive—to build any new coal plants in the United States.116

A. Local Barriers

With the domestic market for coal dwindling, the tribe and its development partners are planning to export the Crow’s coal to international markets, a prospect that depends in part on the construction of proposed coal export facilities in Oregon and Washington.117 However, several cities near the proposed terminals and along the rail routes are trying to stop coal exports, citing concerns about traffic congestion, quality of life, and climate change.118 Cities as far away as Missoula, Montana—more than 500 miles from the proposed terminals—have petitioned the Army Corps of Engineers to expand the scope of its environmental assessment of coastal terminals.119 The city council of Missoula, Montana, for example, wants the Army Corps to conduct a comprehensive environmental impact statement that would evaluate the environmental impacts of coal-rail shipments in Missoula and the increased carbon and mercury emissions once the coal is burned.

Crow tribal chairman Darrin Old Coyote opposes the cities’ attempts to stop the approval of the export terminals.121 In a letter to the city council of Missoula, Montana, Old Coyote wrote:

Today, the Crow Tribe has a rare window of opportunity before it, and we are doing everything in our power to take advantage of it before that window closes . . . . For the Crow people, there are no jobs that compare to a coal job—

116. Id.
118. Id.
120. Id.
the wages and benefits exceed anything else that is available.122

Old Coyote believes the city’s actions will delay, and could possibly halt, the construction of the facilities necessary to export the tribe’s coal resources.123

B. Federal Hurdles

Beyond regulations associated with the emissions or the transportation of tribal energy resources, development projects on tribal lands are subject to a number of federal regulations that do not apply on private lands.124 Some of these regulations are the result of the complex morass of agencies tasked with overseeing Indian energy development, as discussed earlier, while others result from the general application of federal land management laws to Indian lands.125 For instance, like any federal development project, all tribal energy projects must go through National Environmental Policy Act (NEPA) review as well as cultural resource review under the National Historic Preservation Act (NHPA).126 Both requirements add to the complexity of energy development on Indian lands, and neither requirement applies to development projects on private lands.127

Stoney Anketell of the Fort Peck tribe recently noted the frustration that such requirements can impose on tribal energy projects.128 At a meeting in 2013 with several United States senators, Anketell explained how the delays associated with archaeological assessments are impairing oil and gas development on the tribe’s reservation in eastern Montana,129 stating “[I]t takes

122. Id. Old Coyote has also remarked that “the war on coal is a war on our families and our children.” See Terry L. Anderson & Shawn Regan, The War on Coal Is Punishing Indian Country, WALL ST. J., Oct. 11, 2013, at A11.

123. Old Coyote, supra note 121. See also Lynne Peeples, Coal-Hungry World Brings Tough Choices for Native Americans, HUFFINGTON POST (Feb. 6, 2014, 9:59 AM), http://www.huffingtonpost.com/2014/01/30/northwest-coal-exports_n_4611021.html, archived at http://perma.cc/N8H7-SBTZ (noting how other tribes in the Pacific Northwest’s mounted vocal campaigns in opposition to the construction of the terminals over concerns about local impacts to cultural sites, air quality, and waterways).

124. Grogan, supra note 5, at 22.

125. Such agencies include the BIA, BLM, ONRR, and OSM. See Grogan, supra note 5.

126. Grogan, supra note 5, at 22.

127. Id.

128. Anderson & Regan, supra note 122.

129. Id.
too long to get leases approved, to get lease assignments approved, to get rights of way approved.”130 Describing how such regulations often work in practice, Anketell remarked, “We’re not shortchanging the need for archaeological reviews, but on land that has been farmed for seventy years? It’s been tilled, plowed, planted, harvested. There’s no teepee rings.”131 Likewise, Ron Crossguns of the Blackfeet tribe’s Oil and Gas Department recently expressed frustration to a documentary filmmaker over the effects of energy regulations on the tribe’s efforts to develop its resources.132 “It’s our right. We say yes or no,” said Crossguns. “I don’t think the outside world should come out here and dictate to us what we should do with our properties.”133

Tribes are also affected by federal energy regulations in ways that other sovereign nations are not. Tribal nations, unlike other developing nations throughout the world, must pursue energy development within the broader regulatory context of the United States, which treats development projects on tribal lands much like those on federal lands.134 Many of these regulations, including the NEPA and NHPA review processes, are often identified by tribes as significant obstacles to energy development.135 In addition, the transportation of tribal energy resources to market is governed entirely by a federal regulatory structure that can determine the success or failure of tribal energy projects.136 Other nations in the developing world are not subject to the broader regulations of an unequal and more powerful sovereign in the same manner as the relationship between Indians and the United States government.137

131. Id.
133. Id.
134. Royster, supra note 34.
135. See Mining in America: Powder River Basin Coal Mining the Benefits and Challenges: Hearing Before the Subcomm. On Energy and Res. Of the H. Comm. on Natural Res., 113th Cong. (2013) [hereinafter Coal Mining Hearing] (statement of Darrin Old Coyote, Chairman, Crow Nation) (“Federal regulatory requirements for appraisals, surface access approvals and environmental assessments to conduct exploration within the Reservation often times create significant delays.”).
136. Old Coyote, supra note 121.
VI. SUCCESS STORIES IN TRIBAL ENERGY DEVELOPMENT

Despite the challenges discussed above, several tribes have succeeded in developing their energy resources for the benefit of their tribal communities. In particular, these tribes have succeeded by asserting their right to self-determination and by taking a more active role in the resource development process.

The Southern Ute tribe in Colorado has arguably experienced the most success at developing its energy resources. The tribe owns and operates five energy companies and invests much of its energy revenues into its Growth Fund, which is estimated to be worth $4 billion. Today, the tribe’s 1,400 members are each worth millions on paper and receive dividends every year from the fund. The tribe’s expertise in energy development extends far beyond the reservation’s borders. Red Willow Production Company, a tribal-owned energy company, is engaged in oil, gas, and coal-bed methane extraction throughout the western United States, as well as offshore oil production in the Gulf of Mexico.

The Southern Ute tribe’s success began, perhaps surprisingly, after it declared a moratorium on issuing new energy leases in 1974. The tribal council recognized that the DOI failed to negotiate appropriate compensation for leases on the reservation. The tribe also lacked the expertise needed to make informed decisions about energy development projects. Following the moratorium, the tribe contracted with outside experts to map and interpret the extent of its undeveloped resources. In the process, the tribe not only learned the value of their energy resources but also just how much the federal government had undervalued them. After the tribe lifted the moratorium, it continued to consult with outside experts to guide energy development decisions on the reservation. The tribe contracted with attorneys, auditors, petroleum geologists, and others to take advantage of

138. Grogan, supra note 5, at 38.
139. Id.
140. Jonathan Thompson, The Ute Paradox, HIGH COUNTRY NEWS, July 19, 2010 at 17 (noting that the tribe’s Growth Fund “distributes dividends to tribal members between the ages of 26 and 59 and retirement benefits to those over 60. The numbers vary year by year and the tribe won’t reveal them, but one Southern Ute in his 70s says his share [in 2009] totaled $77,500.”).
141. Id.
142. Id.
143. Id.
144. Id.
145. Grogan, supra note 5, at 38.
146. Thompson, supra note 140.
147. Grogan, supra note 5, at 38.
changes in federal policy that allowed tribes to negotiate their own energy leases. By operating its own energy companies, the Southern Ute Tribe established an expertise in resource development and a reputation for good business practices and management.

The tribe’s approach to energy development is consistent with tribal values of self-determination. The tribe conducts its own audits and operates a land division that is adept at navigating the complex layers of federal agencies that oversee energy projects. Revenues from energy development enable the tribe to pay for government and social services. The tribal-owned energy companies are able to take advantage of their exemption from many of the taxes non-Indian operators must pay. The tribal government has also made efforts to separate politics from business, enabling tribal companies to make their own business decisions.

Like the Southern Ute, other tribes are asserting control over their natural resources by purchasing and operating more aspects of the energy development process. In 2013, the Navajo Nation purchased the Navajo Mine, the sole provider of coal to New Mexico’s Four Corners Generating Station, from its previous non-Indian owner, BHP Billiton. The mine has provided jobs to hundreds of tribal members and generates $41 million annually for the Navajo’s general fund. The tribe’s sovereign status will afford it a lower tax burden, allowing the tribe to operate the mine

149. Thompson, supra note 140.
150. Grogan, supra note 5, at 38.
152. Thompson, supra note 140 (further noting that in addition to the Growth Fund, the tribe manages a Permanent Fund that invests energy royalties and casino profits in securities to provide revenue for government and social services on the reservation).
155. Id.
more profitably than BHP Billiton. Similarly, in 2012, the Three Affiliated Tribes of Fort Berthold received initial approval from the Secretary of the Interior to construct on their reservation in North Dakota the first new United States refinery in more than 30 years. If completed, the refinery would process 13,000 barrels of crude oil per day from the Bakken formation for the domestic market and would ensure continued energy-related employment and economic opportunities for the affiliated tribes.

Beyond energy resources, tribes have demonstrated that when they are afforded more control over natural resource management, the result is often better management and higher output. In the 1990s, the Salish-Kootenai Confederated Tribes on Montana's Flathead Reservation took over more than 100 programs previously run by federal agencies, including forestry management. The tribes now earn $2.04 for every dollar they spend on timber management, while the neighboring Lolo National Forest, managed by the federal government, receives only $1.11 for every dollar it spends. More recently, the Salish-Kootenai tribe is looking to purchase a dam on the reservation, thereby becoming the nation's first tribal hydroelectric owners and operators.

VII. POLICY REFORMS TO PROMOTE TRIBAL CONTROL OVER ENERGY DEVELOPMENT

Several policy reforms can help tribes take more control of their energy resources, and if they choose to do so, allow tribes to

156. Id. (further stating that the Secretary of the Interior will need to approve a lease extension for the plant and the mine to operate beyond 2016.) An environmental review process is ongoing at the Office of Surface Mining.


158. Id.


160. Allison Berry, Two Forests Under the Big Sky: Tribal v. Federal Management, 45 PERC POL’Y SERIES, 1, 3 (2009). See Krepps supra note 159, at 179 (noting that “as tribal control increases relative to BIA control, worker productivity rises, costs decline, and income improves. Even the price received for reservation logs increases.”).

161. Id. at 10.

162. Sarah Jane Keller, Montana Tribes Will Be the First to Own a Hydroelectric Dam, HIGH COUNTRY NEWS, Nov. 25, 2013 at 7.
harness institutional attributes that support energy-related economic growth. Although the challenges of getting the institutions right for tribes are multifaceted, the federal government has clearly not lived up to its fiduciary responsibility to manage Indian lands for the benefit of tribes and their members. Tribes such as the Southern Ute and Salish-Kootenai have demonstrated their ability to manage their resources, and other tribes are eager to replicate their success. If policymakers continue to relinquish control over Indian affairs, tribes could more easily benefit from their energy wealth.

In line with recent efforts to afford more control to tribal nations, Congress enacted the Helping Expedite and Advance Responsible Tribal Homeownership (HEARTH) Act in 2012. The Act removes many regulatory hurdles for leasing tribal surface lands by enabling tribes to create their own leasing regulations and requiring the federal government to expedite its approval process. In short, the Act would allow tribes with leasing plans preapproved by the Secretary of the Interior to lease tribal land without needing further secretarial approval for each lease. However, the Act does not apply to “traditional” subsurface energy resources such as oil, natural gas, and minerals, and thus offers no help with the obstacles and delays discussed in this Article. Expanding the HEARTH Act to apply to these traditional forms of subsurface energy development, or adopting similar legislation for such resources, would address many of these obstacles.

Like the HEARTH Act for renewable energy development, TERA agreements are intended to promote increased tribal sovereignty over subsurface energy development. However, as discussed earlier, the TERA approval process is still complicated by excessive rules and regulations. Streamlining the TERA approval process to make it a more practical and effective alternative for tribes would encourage more tribal self-determination and sovereignty over development decisions. In addition, allowing individual Indian mineral owners to negotiate IMDA or TERA agreements—and eliminating many of the steps required to process such leases—would reduce similar obstacles

165. Id.
166. Id. at 1033 n.4. Specifically, the Act is intended to promote renewable resource development on tribal lands.
167. Grogan, supra note 5, at 16.
faced by individual Indians residing on individual trust (allotted) lands.\textsuperscript{168}

Other policy reforms that would promote tribal sovereignty over energy development include repealing the $6,500 fee assessed by the BLM for processing each application to drill on Indian lands and streamlining the approval process for energy development throughout Indian Country.\textsuperscript{169} In response to pressure from Congress and several tribes, the BIA created two “one-stop shops” to expedite the complex approval process for leasing Indian lands for energy development—one in Farmington, New Mexico for the Navajo Reservation, and another in New Town, North Dakota for the Fort Berthold Reservation.\textsuperscript{170} Staffed with personnel from multiple agencies, the “shops” are intended to streamline the bureaucracy that oversees Indian resource management.\textsuperscript{171} Thus far, the shops appear to be providing a more reliable and consistent permitting process for oil and gas companies seeking to contract with tribes or individual Indians.\textsuperscript{172}

Another initiative underway from within Indian Country is the adoption of business and commercial laws that promote certainty for lenders and other businesses.\textsuperscript{173} One example used by a growing number of tribes is the Model Tribal Secured Transactions Act (MTSTA). This model commercial law has enabled tribes to harmonize their legal framework for many types of commercial transactions with the laws of state and other tribal jurisdictions.\textsuperscript{174} This has helped to reduce some of the uncertainty and confusion that lenders and investors often face when attempting to do business in Indian Country. Tribes that have adopted laws such as the MTSTA have done so to help reduce the cost of doing business in their jurisdictions and to promote access to capital and credit for

\textsuperscript{168} These proposals are similar to legislation proposed in 2010 by Senator Byron Dorgan of North Dakota. See Letter from the U.S. Senate Comm. on Indian Affairs to Tribal Leader (Sept. 10, 2009) (on file with author).

\textsuperscript{169} Grogan, supra note 5, at 26.

\textsuperscript{170} Id. at 24.

\textsuperscript{171} Id. at 40.

\textsuperscript{172} Id. Senator Byron Dorgan noted in 2010 that the one-stop shop on Fort Berthold was “cutting through the red tape” and promoting a more reliable and consistent permitting process for oil and gas companies.

\textsuperscript{173} Susan Woodrow & Fred Miller, Lending in Indian Country: The Story Behind the Model Tribal Secured Transaction Law, 15 BUS. L. TODAY 39, 43 (2005).

their tribal and member-owned businesses.  Today, however, many tribes still lack effective and relevant commercial laws.

In Canada, First Nations (the equivalent of tribes in the United States) are exploring other policy reforms that address similar challenges to those faced by tribes in the United States. The proposed First Nation Property Ownership Initiative would give First Nations the opportunity to hold full legal title to their lands, just like any other Canadian. Each First Nation would have the option to choose whether to participate in the initiative. Those that participate would have the power to transfer the legal title to individuals while retaining First Nation jurisdiction over the land. A similar initiative in the United States would have dramatic implications for Native American economies, not the least of which would be to reduce the authority of the federal government over Indian resource development.

CONCLUSION

The discussion herein demonstrates that energy resources on Indian lands hold the potential for generating significant wealth for Native Americans. However, most reservations with energy resources have not yet fully capitalized on their energy wealth. Of course, tribal self-determination includes the right for tribes to choose not to develop their energy wealth, as the Northern Cheyenne tribe has done. But if institutional constraints such as the federal trusteehip over Indian lands, an unstable rule of law, or federal regulations prevent tribes from developing their natural resources, then it is time to reconsider those institutions.

A recent report examining energy development on American Indian lands stated, “the best way for the government to honor its trust obligations is to stop trying to determine what is in the best interest of tribes and instead support tribal efforts to make that decision autonomously.” The report concluded, “[w]hen tribes are free to make decisions for themselves, they have the opportunity to align policy and planning with tribal priorities.”

175. Id.
176. Id.
178. Id.
179. Id.
180. Grogan, supra note 5, at 36.
181. Id. at 46.
182. Id. at 47.
Tribes have proven that when they are given the right to manage their own resources, they repeatedly demonstrate that they can do so in ways that benefit tribal nations and generate broader economic growth. When tribes are freed from the oversight of the federal government, they are able to determine what is best for them and engage in economic activities that promote both their cultures and their communities.

The importance of institutions such as property rights and the rule of law in promoting economic growth have been demonstrated throughout human history, and they appear to be equally important for Native American reservations. Despite the fact that reservations often contain valuable natural resources, many tribes remain locked in a poverty trap. In effect, their land amounts to what de Soto referred to as “dead capital”—unable to generate benefits to tribes, individual Indians, or the broader economy. Policy reforms that enable tribes and individual Indians to more easily convert their land from “dead capital” into “live capital” are sorely needed. As long as tribes are denied the right to own their land and control their resources, they will remain locked in poverty and dependence. If tribes are afforded the same rights and institutions as those living outside of reservations, they would have the opportunity to unlock the tremendous wealth of Indian nations.

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183. See Berry, supra note 160.