Native Nation Economic Development Via the Implementation of Solar Projects: How to Make It Work

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Table of Contents

I. Introduction ................................................................................................................. 2

II. Economic Development .......................................................................................... 6
   A. Indian Gaming ........................................................................................................ 6
   B. Practical Sovereignty .............................................................................................. 11
   C. Capable Institutions .............................................................................................. 12
   D. Cultural Match ...................................................................................................... 18

III. Solar Energy ............................................................................................................ 22
   A. General Benefits ..................................................................................................... 23
      1. Rural Areas Without Electricity ........................................................................... 23
      2. Environmental Protection .................................................................................... 24
      3. Security of Investment ......................................................................................... 26
      4. Economic Advantages ......................................................................................... 31
      5. Sustainable Development ................................................................................... 45
   B. Practical Sovereignty .............................................................................................. 46
      1. Tribal Implementation .......................................................................................... 48
      2. Legislative Implementation ................................................................................. 56

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C. Capable Institutions .................................................. 68
   1. Tribal Implementation .......................................... 69
   2. Legislative Implementation .............................. 78
D. Cultural Match ................................................... 80
   1. Tribal Implementation .......................................... 82
   2. Legislative Implementation .............................. 84

IV. Conclusion ......................................................... 86

I. Introduction

The Obama Administration has repeatedly stated a commitment to sustainable energy "that can serve as a pillar of [economic] recovery."\(^1\) It seems that Barack Obama's commitment to sustainable energy is more than mere lip service. Recently, the Administration introduced legislation, approved by Congress in September 2009, which allocates billions toward expanding and accelerating development, deployment, and use of geothermal and solar energy throughout the United States.\(^2\) Currently, the Bureau of Land Management (BLM) is conducting a Solar Energy Development Programmatic Environmental Impact Statement in order to identify and prioritize specific locations best suited for large-scale production of solar energy.\(^3\) Most importantly, the American people are on board—a recent poll shows that the majority of "Americans approve of the way President Obama is handling energy issues and support efforts by him and Democrats in Congress to overhaul energy policy."\(^4\) Even Major

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League Baseball is going green. It seems that the "green energy revolution" has finally arrived.

The Obama Administration has also made its commitment to Native American economic development well known. Here, too, the Administration has followed through with many of its promises. For example, in the American Recovery and Reinvestment Act of 2009 (ARRA), the Administration fought to earmark over $40 billion dollars to Indian tribes; the Bureau of Indian Affairs (BIA) has seen a general


increase in grant money since the Administration took office;\textsuperscript{9} and Obama’s proposed FY2010 budget plan increased the Department of the Interior’s budget to $12 billion, including $5 billion to improve economic development on BIA-managed lands and $30 million to help Native Americans protect their communities by strengthening police programs and detention centers.\textsuperscript{10} For tribes that seize the opportunity, this means development.\textsuperscript{11}

Indian lands have some of the most significant energy potential in the country.\textsuperscript{12} In particular, solar electricity prospects on tribal lands are estimated to be four and a half times the annual total electricity needs of the United States.\textsuperscript{13} Ironically, tribal lands are also the most underdeveloped


and economically impoverished regions in the country. To add an unfortunate and paradoxical twist, many tribal lands lack electricity service altogether. Where electricity service is available, Native Americans pay the highest rates in the nation—usually totaling a disproportionately high percentage of their income.

This Article will examine the issues surrounding sustainable economic development in American Indian country through the implementation of


solar energy projects. Section II will address Native American economic development, generally, focusing on Indian gaming, practical sovereignty, capable institutions, and cultural match. Section III will discuss solar energy projects, including: the benefits of solar energy when compared to other types of energy production; the ways that these projects will benefit Indian country, specifically; and the rationale behind implementing solar energy projects as a means to sustainable economic development in Indian country. In arguing for the implementation of solar energy projects, Section III will also provide instructions for the realization of these projects by tribes and state or federal regulatory or legislative bodies. Finally, having argued for and laid out a framework for economic development via solar projects, Section IV will offer concluding remarks.

II. Economic Development

A. Indian Gaming

It is nearly impossible to discuss Native American economic development without paying notice to Indian gaming. Since the introduction of the Indian Gaming Regulatory Act (IGRA) in 1988, over 200 tribes have established gaming enterprises. Gaming revenues were $26.2 billion in 2009, and are the primary source of employment and


revenue for many tribes. However, research now shows that Indian gaming and economic success are not synonymous. In fact, a decade after the introduction of IGRA, real household income in non-gaming areas actually grew more rapidly (33%) than in gaming areas (24%). Gaming is a part of the picture, but does not reflect the entire picture.

The other side of gaming is the risk involved. First, there is a high degree of risk in placing all of a tribe’s assets in one economic venture, especially when that investment depends upon the state of the general U.S. economy. Indian gaming is subject to the same forces that affect all economies. Thus, in 2008, due to the recession in the U.S. economy, many Indian gaming enterprises reported revenue declines and layoffs.

21. INDIAN GAMING FACTS, supra note 20, at 7. Revenues from Indian gaming may only be used for the limited purposes of funding Tribal Government operations or programs; providing for the general welfare of the Indian tribe and its members; promoting Tribal economic development; donating to charitable organizations; or funding operations of local government agencies. See 25 U.S.C. § 2710 (2006) (providing tribal gaming ordinances).

22. See STATE OF NATIVE NATIONS, supra note 18, at 117 (noting that "for many Indian nations, particularly those far from large population centers from which to draw customers, gaming has made little impact on the problems of persistent poverty"); Stephen Cornell & Joseph P. Kalt, TWO APPROACHES TO THE DEVELOPMENT OF NATIVE NATIONS: ONE WORKS, THE OTHER DOESN’T, IN REBUILDING NATIVE NATIONS: STRATEGIES FOR GOVERNANCE AND DEVELOPMENT 3, 6 (Miriam Jorgensen ed., 2007) [hereinafter Cornell & Kalt, Two Approaches] (characterizing the perception that development in Native nations results from the gambling industry as "inaccurate").

23. STATE OF NATIVE NATIONS, supra note 18, at 7. Both were far greater than the 4% growth in the median American household income during the same decade. Id. at 7–8.

24. See N. BRUCE DUTHU, AMERICAN INDIANS AND THE LAW 118 (2008) (noting that it is "so much gaming that is driving the socioeconomic changes . . . as it is a broader policy of Indian self-government" (quoting Jonathan B. Taylor and Joseph P. Kalt)).

25. See Keith C. Miller, Preface, 57 DRAKE L. REV. 319, 320–21 (2009) ("The economic crisis beginning in 2008 has shattered the notion that the gaming industry is ‘recession-proof.’ Because of states’ heavy regulation of gaming, casino bankruptcy proceedings take on an additional element of complexity that is usually absent from the typical bankruptcy reorganization proceeding.").


27. See Alan P. Meister et al., INDIAN GAMING AND BEYOND: TRIBAL ECONOMIC DEVELOPMENT AND DIVERSIFICATION, 54 S.D. L. REV. 375, 394 (2009) ("Throughout 2008, amidst the downturn in the economy, many Indian gaming facilities reported revenue declines and layoffs."). Some casinos are even closing down completely due to the recession. See, e.g., Rachel Pritchett, Lucky Dog Tribal Casino to Close, Costing 120 Jobs, SEATTLE TIMES, Sept. 29, 2009, at B7 (discussing the closure of the Lucky Dog Tribal Casino).
Just like everyone else, the recession has forced tribes to diversify their investments.\textsuperscript{28} Many tribes are now diversifying their investment portfolios—and it is paying off.\textsuperscript{29}

Second, Indian gaming faces constant legal challenges and proposed legislation and regulation restricting its efficacy.\textsuperscript{30} Because of Congress' plenary power,\textsuperscript{31} Indian gaming can be eliminated with one swipe of Congress' pen.\textsuperscript{32} Although it is unlikely that Congress would take such a drastic step, it is not to say that states and the federal government are unwilling to take steps that critically impact a tribe's ability to expand or maintain gaming investments.\textsuperscript{33} Many tribal representatives are realizing that the economic benefits of gaming will not last forever.\textsuperscript{34}

\textsuperscript{28} See Marketplace Morning Report: Tribal Casinos Slim Down in Hard Times (American Public Media radio broadcast Apr. 13, 2009), available at http://marketplace.publicradio.org/display/web/2009/04/13/am_tribal Casinos (statement of Steve Light, Co-Director of the University of North Dakota's Tribal Gaming Institute) (noting that "tribes are spreading around their investments").

\textsuperscript{29} See Beyond Casinos, supra note 26 (noting that some tribal enterprises are expanding out of the U.S. altogether and becoming players in the global economy). For example, the Forest County Potawatomi of Wisconsin are currently negotiating construction contracts with India. \textit{Id.}


\textsuperscript{31} See United States v. Lara, 541 U.S. 193, 200 (2004) (noting that "the Constitution grants Congress broad general powers to legislate in respect to Indian tribes, powers that we have consistently described as 'plenary and exclusive.'").

\textsuperscript{32} See DAVID EUGENE WILKINS, THE NAVAJO POLITICAL EXPERIENCE 25--26 (2003) (discussing the idea that "the federal government can act without limitation").

\textsuperscript{33} See Meister et al., supra note 27, at 394 ("The Indian gaming market in South Dakota is artificially constrained by compact limits on the number of slot machines the tribes may operate."); Baucom, supra note 20, at 423 (noting that tribal sources of revenue are "under attack by states"). One Congressional representative has even gone so far as to call Indian gaming "fronts for organized crime," and has sought to ban Indian gaming outright. Linda Kanamine, \textit{Congress Takes on Reservation Gambling}, USA TODAY, May 27, 1993, at 3A.

\textsuperscript{34} See, e.g., Beyond Casinos, supra note 26 (quoting Pepi Randolph as saying that tribes "have to be aware that gaming's [sic] not going to last forever"); see also Meister et al., supra note 27, at 397 (stating that "developing beyond gaming might well be the ultimate, and most desirable, outcome").
Although Indian gaming does provide valuable training ground and startup capital for economic growth, total dependency on gaming is not sustainable. By diversifying their investments, tribes can expand sources of income, consequently minimizing risk, intensifying their economic base, and providing long-term economic stability. As the Harvard Project on American Indian Economic Development has acknowledged, "[t]ribally owned corporations that follow diversified business models promote a robust mix of operations and decrease dependency on one particular business or industry for employment and/or revenues." This is an economically sustainable business model.

One non-gaming example of a successful economic development venture is provided by the Oneida Nation of Wisconsin. In 1978, the Oneida Nation purchased a small 150-acre farm with the idea of honoring its agricultural traditions while generating revenue. Today, the Oneida Farms/Agriculture Center (ONFAC) consists of over 8,000 acres, and


36. See Meister et al., supra note 27, at 395 (noting that "n so doing, tribes develop sources of revenue other than gaming, thus diversifying their economic base, minimizing risk, and providing greater long-term economic stability").

37. THE HARVARD PROJECT ON AMERICAN INDIAN DEVELOPMENT, HONORING NATIONS: CELEBRATING EXCELLENCE IN TRIBAL GOVERNANCE 37 (2005) [hereinafter HONORING NATIONS].


39. See HONORING NATIONS, supra note 37, at 21 (noting that the Oneida Nation "decided to develop its land in ways that would honor its agricultural traditions while also generating revenue"). Another great example is the Mille Lacs of Ojibwe in Northern Minnesota. See Stephen Cornell, Miriam Jorgensen, Ian Wilson Record, & Joan Temeche, Citizen Entrepreneurship: Underutilized Development Resource, in REBUILDING NATIVE NATIONS: STRATEGIES FOR GOVERNANCE AND DEVELOPMENT 197, 209–10 (Miriam Jorgensen, ed., 2007) (describing the Mille Lacs Band’s creation of a small business development program).

40. See HONORING NATIONS, supra note 37, at 21 (noting that the Oneida Nation "decided to develop its land in ways that would honor its agricultural traditions while also generating revenue").
generates a large portion of the tribe’s total revenue. While ONFAC functions much like a for-profit enterprise, all proceeds are returned to the Oneida’s General Fund and used to benefit the entire tribe. Much of ONFAC’s success is attributed to the complementary practices of: (1) merging the goals of land acquisition and sustainable economic development in a microenterprise—providing employment opportunities, promoting economic growth, and increasing their land base; (2) utilizing traditional values, such as connections to the land and agrarian customs—developing in a way that supports culture and tradition while improving contemporary ways of life; and (3) developing and utilizing a "strategic vision with a holistic approach" that considers sustainability for future generations while balancing the competing needs of business and the present and future well-being of their own citizens.

Although Indian gaming can provide startup income for other ventures, it is not, and should not, be a tribe’s only revenue-raising opportunity. As the Oneida example illustrates, other ventures are likely to be profitable, without the risks that gaming presents. In order to be sustainable, tribes should invest in "second wave economic ventures" that

41. See id. at 21–22 ("Today Oneida Nations Farm consists of 8,000 acres, producing over 4,000 acres of cash crops . . . ."). In 2004 alone, ONFAC created gross revenues of over two million dollars, one-fourth of that being gross profit. Id. at 23.
42. See id. (noting that "all profits are returned to the Nation’s General Fund and used for the benefit of all tribal citizens").
43. Id. at 25.
44. See id. at 23 (noting that the Oneida Nation Farms and Agricultural Center "has been able to garner substantial revenue for the Nation").
45. "Second wave economic ventures" refer to those non-gaming ventures which, unlike "first wave" non-gaming businesses that rely solely upon gaming customers and improve the gaming infrastructure directly, occur[] off-reservation or [are] less dependent upon gaming customers. There is also an emphasis on off-reservation markets, even international markets, for these products. A few of the diverse economic ventures that Indian nations are pursuing include: The Mohegan Tribe of Connecticut is planning to invest in an aquaculture program that will include a shellfish hatchery in Stonington, CT, a processing plant on the reservation and fish barns throughout the region. They are also seeking approval to provide local and long-distance telephone service throughout the state.

The San Manuel Band in California is opening a water bottling plant on their reservation that will focus on national and international markets, and is also building a retail center off their reservation in nearby Highland, CA.

The Seminole Tribe of Florida has started an Aircraft Company with a vision of manufacturing single-engine, high-performance aircraft. It is the first Native American-owned company to ever gain a production certificate from the FAA.
promote practical sovereignty, maintain autonomous institutions, and promote the tribe’s traditional culture.

B. Practical Sovereignty

In their 1968 study of the relationship between American Indians and the U.S. federal government, Warren H. Cohen and Philip J. Mause found that "the normal expectation on the reservation is that the Indians may not do anything unless it is specifically permitted by the government."46 In many cases, this finding still rings true. Non-Indigenous governments are often pressured to suppress Native nations’ assertions of practical sovereignty47 because, as Professors Cornell and Kalt explain, "[t]urning over real power to Native nations is threatening: What if they screw up? What will tax-payers say?"48 However, evidence abounds that this approach has only led, in the long run, to larger burdens on taxpayers, and more poverty in Indian country.49 In fact, in over twenty years of research in Indian country, no circumstance of sustained economic development has been found where a tribe is not making their own decisions about resource use, internal organization, or development strategies.50

Put briefly, practical sovereignty is necessary to sustainable economic development. Cornell and Kalt have identified two reasons for this phenomenon. First, "practical sovereignty puts the development agenda in Native hands."51 This means that tribes themselves set the agenda—rather than outsiders (who reflect foreign cultures, interests, and perceptions)—


47. Practical sovereignty, in this sense, refers to "decision-making power in the hands of Native nations." Cornell & Kalt, *Two Approaches*, supra note 22, at 19.

48. Id. at 14.

49. See id. at 15 (noting that this approach "has led, in the long run, to more poverty, more problems, and larger burdens on taxpayers").

50. See id. at 22 ("[W]e cannot find a single case of sustained economic development in which an entity other than the Native nation is making the major decisions about development strategy, resource use, or internal organization.").

51. Id. at 21.
reflecting tribal culture, perceptions, and interests.\textsuperscript{52} As a result, these strategies are best suited to address local needs, conditions, and values.\textsuperscript{53} As a practical matter, sovereignty places resources directly in the hands of the native nation, which translates to an increased sense of possession over resources.\textsuperscript{54} Second, "self-governance means accountability."\textsuperscript{55} Practical sovereignty weds decisions to consequences, resulting in improved resolutions because tribes themselves have the principal stake in the outcome.\textsuperscript{56} The result is more efficient access and use of capital; improved probability of sustainable economic development; more successful defense of sovereignty; and societies that mesh politically, socially, culturally, and economically.\textsuperscript{57}

\textbf{C. Capable Institutions}

The Snoqualmie Indian Tribe is located in western Washington State, just east of the Seattle metropolitan area.\textsuperscript{58} Federally recognized in 1999, the tribe sought to take advantage of its prime location by opening a casino just half an hour from downtown Seattle.\textsuperscript{59} The project incurred over $375 million in debt, but was expected to "launch the tribe's approximately 600 members into long-awaited prosperity."\textsuperscript{60} Instead, realizing that gaming

\begin{footnotesize}
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\item See id. ("When decisions move into tribal hands, agendas begin to reflect tribal interests, perceptions, and cultures.").
\item See id. ("Top-down, imposed strategies are replaced by strategies that rise up out of Native communities themselves, tuned to local conditions, needs, and values.").
\item See id. at 22 (noting that, on average, "Native nations do a better job of managing their forests because these are their forests").
\item Id. at 21.
\item See id. (noting that self-governance "marries decisions and their consequences, leading to better decisions").
\item See id. at 30 (detailing the benefits of the self-governing, nation-building approach to the development of native nations).
\item See id. (explaining the Snoqualmie tribe's plan to build a casino near Seattle).
\end{enumerate}
\end{footnotesize}
revenue was only one-fourth of that projected, the tribe has been forced to implement a series of government cutbacks and layoffs, and is, at the time of writing, still in danger of financial collapse. In order to solve their financial crisis, the tribe hired a grant and administration consultant to look into the problem. The memorandum produced by the consultant found extremely high overhead rates on old contracts; a finance office that was understaffed; insufficient record keeping pertaining to "large sums of money"; and "major problems" tracking, monitoring, and organizing its awarded grants and contracts. The Snoqualmie government is, at this point, a non-entity. Due to infighting, the tribal Council refused to meet and, in August 2009, the tribe's administrative offices were padlocked and its federal funding was frozen. As of this writing, the Council is attending mediation in which they will discuss election procedures for a new Council. Although the casino project is still in operation, its fate, and indeed that of the tribe, is up in the air.

As the Snoqualmie have demonstrated, one of the central components to successful economic development is putting into place a tribal administration that works and is supported by its citizens. In fact, the Snoqualmie's borrowing of $375 million as the largest startup financing in the history of American tribes building casinos).

61. See Mapes, supra note 60 (relating the financial woes of the Snoqualmie).
62. See id. (stating that the tribe hired a consultant).
63. Id.
64. See id. (describing the absence of a real functioning Snoqualmie tribal government).
65. Id.
66. See id. (describing the mediation procedure and forthcoming elections).
67. See id. (explaining the uncertain financial futures of the Snoqualmie tribe and its casino). Because of taxing and property issues, discussed infra, many tribes rely solely on economic development ventures to deliver essential governmental services and programs to their citizens. See State of Native Nations, supra note 18, at 152 (stating that gaming revenues are often used to provide government services that are otherwise unavailable).
68. See Stephen Cornell & Miriam Jorgensen, Getting Things Done for the Nation: The Challenge of Tribal Administration, in Rebuilding Native Nations: Strategies for Governance and Development 147 (Miriam Jorgensen ed., 2007) ("A central component of nation building is putting in place a bureaucracy that works and that gains the support of the nation's citizens."). Another important aspect is trust—tribes must trust leaders to diversify the economic base and to care for the community. See W. Ron Allen, We Are a Sovereign Government, in State of Native Nations, supra note 18, at 31 ("Tribes . . . must learn to trust those leaders who will generate revenues from a variety of sources.").
research supports the conclusion that capable institutions are a necessary condition to successful economic development.\textsuperscript{69}

Substantially contributing to the failure of current Indian institutions is the fact that many tribal governments are built on remnants of Indian Reorganization Act (IRA)\textsuperscript{70} policies.\textsuperscript{71} Congress passed the IRA in 1934 to correct previous failures in federal Indian policies.\textsuperscript{72} Under the IRA, tribes were encouraged to "reorganize" by adopting new boilerplate constitutions to become valid if approved by the Secretary of the Interior.\textsuperscript{73} The IRA model typically consisted of a strong executive office that chaired an elected council of eight to fifteen members.\textsuperscript{74} IRA constitutions rarely provided for a system of courts and delineated no separation of powers.\textsuperscript{75}

IRA systems have been called "double-edged swords" for many tribes—although ending a period where tribes were unable to exert sovereignty at all, the systems of governance that the IRA provided have proved ineffective because of their inability to take into account the wide variety of governing institutions that tribes had used to rule themselves from time immemorial.\textsuperscript{76} While a few tribes have managed well under the IRA model, it is often because the IRA model coincidentally fit what the tribe had been previously doing.\textsuperscript{77} For the most part, the negative effects of

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\item \textsuperscript{69} See Stephen Cornell & Joseph P. Kalt, Where's the Glue? Institutional and Cultural Foundations of American Indian Economic Development, 29 J. SOCIO-ECON. 443, 453 (2000) [hereinafter Cornell & Kalt, Where's the Glue?] ("First, we have argued that institutions of self-government are the key to (i.e., necessary conditions for) economic development by sovereign societies.").
\item \textsuperscript{71} STATE OF NATIVE NATIONS, supra note 18, at 19 (explaining how many tribal governments are heavily influence by the effects of the IRA of 1934).
\item \textsuperscript{72} See FRANCIS PAUL PRUCHA, THE INDIANS IN AMERICAN SOCIETY 63–64 (1985) (recounting the failures of previous policies and the origination of the IRA of 1934).
\item \textsuperscript{73} See STATE OF NATIVE NATIONS, supra note 18, at 19 (discussing the homogenizing effect of the adoption of tribal constitutions under the IRA of 1934).
\item \textsuperscript{74} See id. (describing the typical model of tribal government under IRA of 1934 constitutions).
\item \textsuperscript{75} See id. ("IRA constitutions also rarely provided for a dispute resolution mechanism (e.g., a system of tribal courts) and delineated 10 explicit separation of powers.").
\item \textsuperscript{76} See id. ("Perhaps like trying to impose a monarchy on the United States today, foreign systems of government in Indian country have generally lacked legitimacy and support—and therefore effectiveness.").
\item \textsuperscript{77} See Cornell & Kalt, Where's the Glue?, supra note 69, at 463–64 (explaining how the Apache have traditionally had a strong executive system of government and have thrived
\end{itemize}
the IRA model have been long-lasting, as tribes continue to operate under institutions that are out of step with traditional standards of authority and governance.78

under the IRA model).

78. See STATE OF NATIVE NATIONS, supra note 18, at 20 ("The lesson is quite general across Indian country . . . . Foreign systems of government that do not fit with a people’s own standards as to how they should self-rule are prime causes of nations in trouble."). As one tribal leader notes, "[T]ribes or bands were created by the people basically as survival units, and the Indian policy makers saw them as the greatest impediment to assimilating and ‘civilizing’ the Indians. In the minds of the policy makers, the tribes had to be destroyed." Charles Trimble, Fiction and Myth Surrounding the IRA, INDIANZ.COM (Mar. 8, 2010), http://64.38.12.138/News/2010/018696.asp (last visited Oct. 6, 2010) (on file with the Washington and Lee Law Review). Moreover, contracts "approved" by the Secretary of the Interior under the IRA system were particularly horrible economically. See Peter d’Errico, Navajo Nation, Known as an Indian Tribe, INDIAN COUNTRY TODAY (Apr. 15, 2009), http://www.indiancountrytoday.com/archive/43030782.html (last visited Oct. 6, 2010) (explaining a particularly horrible contract) (on file with the Washington and Lee Law Review). For instance, a contract between the Navajo Nation and Peabody Coal allowed Peabody to extract tons of Navajo coal at a maximum royalty rate of 37.5 cents per ton, while "the average market price of coal of all kinds in 1963 was $4.55." Id. Recently, as a result of much mismanagement of native funds and contracts via IRA-era policies, Cobell v. Salazar, 573 F.3d 808 (D.C. Cir. 2009), held that members of a native class-action will be entitled to equitable relief in the nature of restitution. See id. at 811 (remanding to the district court for enforcement of an equitable accounting). The estimated damages were around $125 billion. See MEIZHU LI ET AL., THE COLOR OF WEALTH: THE STORY BEHIND THE U.S. RACIAL WEALTH DIVIDE 51 (2006) ("Nearly $137.2 billion might have been stolen, lost, or misallocated since the passage of the General Allotment Act."); Bill Lee, Time to Get Settlement Funds to Indians, YAKIMA HERALD-REPUBLIC (July 28, 2006), http://64.38.12.138/News/2006/015181.asp (last visited Oct. 6, 2010) (noting that the current settlement is "nowhere near the $100 billion they said they were owed . . . .") (on file with the Washington and Lee Law Review). The class has recently settled for far under that amount. See COBELL v. SALAZAR, http://www.cobellsettlement.com (last visited Oct. 6, 2010) ("Under the terms of the Settlement, the federal government will create a $1.4 billion Accounting/Trust Administration Fund and a $2 billion Trust Land Consolidation Fund. The Settlement also creates an Indian Education Scholarship fund of up to $60 million to improve access to higher education for Indians.") (on file with the Washington and Lee Law Review); see also generally Angelique EagleWoman, Why the Proposed Cobell Settlement is a Scam and a Great Wrong to Indian People, RED LAKE NET NEWS, http://www.rlnn.us/Art012010WhyPropCobellSettleScam.html (last visited Oct. 6, 2010) (noting the due process problems with the government’s proposed settlement) (on file with the Washington and Lee Law Review). Currently, in addition to the Cobell litigation, there are over one hundred cases filed by tribal governments pending before various federal courts. See Quanah Spencer, What Tribes Need to Know About the Quick-Moving Cobell Settlement, NORTHWEST INDIAN L. & BUS. ADVISOR (Dec. 11, 2009), http://www.nwindianbusinesslawblog.com/2009/12/articles/sovereign-immunity/what-tribes-need-to-know-about-the-quick-moving-cobell-settlement (last visited Oct. 6, 2010) (noting the several tribal cases currently before federal courts) (on file with the Washington and Lee Law Review).
Thus, it is not surprising that when U.S. policy shifted to an era of self-determination, slowly attempting to remove federal interference with tribal affairs, economic development began to take hold. The self-determination era came into full swing in 1975 when Congress passed the Indian Self-Determination and Education Assistance Act (ISDEAA), allowing Indians to contract with the government to deliver and administer federal services. In other words, Indians would be administrating federal programs in Indian country. Aside from ISDEAA, Congress began enacting a "slew of dynamic programs and progressive laws . . . committed to involving tribes in the development and implementation of programs and services, particularly at the community level."

However, many tribes are still unable to effectively govern themselves, largely due to the residual effects of IRA policies. As Vine Deloria, Jr. noted at the turn of the era, since the 1950s, "the situation in Indian Affairs has bordered on the irrational. There have been few changes on the Congressional committees, the [BIA] has changed little, [while] tribes and the general public have been more vocal about their problems." Today, courts still fail to acknowledge the policy shift to self-determination, and in many instances still compel the IRA approval process before

79. See STATE OF NATIVE NATIONS, supra note 18, at 8–9 (noting the relationship between self-determination and economic growth).
81. See ROBERT J. MILLER, NATIVE AMERICA DISCOVERED AND CONQUERED: THOMAS JEFFERSON, LEWIS & CLARK, AND MANIFEST DESTINY 171 (2006) ("This act allows Indian Nations to contract with the federal government for the delivery of federal services, and although the programs continue to be federally funded, the tribes can administer the programs themselves.").
82. Id. But see VINE DELORIA, JR., CUSTER DIED FOR YOUR SINS: AN INDIAN MANIFESTO 145 (1969) ("The charge has frequently been leveled at the [BIA] that it has set up puppet governments on the reservations."); DAVID WILKINS, THE MANIPULATION OF INDIGENOUS STATUS: THE FEDERAL GOVERNMENT AS SHAPE-SHIFTER, 12 STAN. L. & POL’Y REV. 223, 232 (2001) (arguing that, often, these are mere IRA policies delegated to Indian puppets (citing VINE DELORIA JR. & DAVID E. WILKINS, TRIBES, TREATIES, AND CONSTITUTIONAL TRIBULATIONS 41 (1999))).
84. See CORNELL & KALT, WHERE’S THE GLUE?, supra note 69, at 463 ("[W]e encounter tribes who have been dealt a set of formal governing institutions that may or may not accord with the way a particular tribe historically governed itself."); see also generally RED POWER: THE AMERICAN INDIANS’ FIGHT FOR FREEDOM 69–140 (Alvin M. Josephy, Jr. ed., 1971).
85. DELORIA, JR., supra note 82, at 135.
changes in tribal institutions can be implemented. Because many tribes have retained IRA institutions to implement these programs, they often fail, and true self-determination is never realized.

While questions exist as to exactly how much self-determining the federal government intended to promote, "the fact is that Indian nations took the government at its word," and are finding methods to "give real teeth" to the policy where federal agencies have failed. When Native nations set their own priorities and manage systems, programs, and dollars in their own way, responsibility rests with the tribe itself and decision-makers are held accountable to their own citizens, not the federal government. Accountability means legitimacy; it means that rewards and penalties bound in social sentiments are triggered by the social networks of a tribe in ways "that inhibit free-riding and defection vis-à-vis those institutions." Like trying to impose a monarchy in the United States today, alien systems of governance in Indian country have consistently lacked support, legitimacy, and effectiveness. Whereas imposed systems, such as the IRA, only needed to work well enough to keep the money flowing in, a sovereign nation accountable to its own citizens requires capable institutions to administer tribal affairs, keeping the money once it arrives.

86. See, e.g., California Valley Miwok Tribe v. United States, 515 F.3d 1262, 1263 (D.C. Cir. 2008) ("[I]t has been a bedrock principle of federal Indian law that every tribe is capable of managing its own affairs and governing itself." . . . But tribes that want federal benefits must adhere to federal requirements. The gateway to some of those benefits is the Indian Reorganization Act of 1934." (internal citations omitted)).

87. See Cornell & Kalt, Where's the Glue?, supra note 69, at 463 (noting the correlation between political institutions that are an appropriate fit and general economic health); see also STATE OF NATIVE NATIONS, supra note 18, at 9 ("Policies of self-determination are poorly understood by many Americans and federal and state policy makers. They are under constant pressure for repeal.").

88. STATE OF NATIVE NATIONS, supra note 18, at 55.

89. See Cornell & Kalt, Two Approaches, supra note 22, at 15 (explaining that local management means local accountability).


91. See STATE OF NATIVE NATIONS, supra note 18, at 19 (comparing the lack of legitimacy of foreign governments in Indian country to that of a hypothetical monarchy in the United States); see also Cornell & Kalt, Where's the Glue?, supra note 69, at 453 ("[A] society's formal institutions would be more effective the closer is the match of those institutions to the informal institutions that emanate from cultural norms.").

92. STATE OF NATIVE NATIONS, supra note 18, at 18 (explaining that dependent tribal governments have less responsibility and lower capacities).
D. Cultural Match

Many tribal leaders are hesitant to become involved in the global economy, and for good reason. The history of Native America is plagued with exploitation, fraud, and outright racist policies. This has led to wariness in tribal governments of outside business interests and the "get rich" development scheme that is going to 'save' the reservation. Professor Pommersheim noted that for "many Indians, development is the road to cultural ruin" since it has often led to "a further walk down that non-Indian road to assimilation and 'civilization.'" It seems that many tribal leaders, faced with the problem of appearing as "sell outs," take the stand that "the capitalist model does not fit the culture of many Indian people, and that business and who Indians 'are' is in conflict." However, research shows that tribal leaders who oppose "the assimilation of the foreign in the logics of the familiar" may in fact be harming, rather than helping, their tribe. Many successful tribal


96. Miller, supra note 94, at 1301. But see Duane Champagne, Tribal Capitalism and Native Capitalists: Multiple Pathways of Native Economy, in NATIVE PATHWAYS: AMERICAN INDIAN CULTURE AND ECONOMIC DEVELOPMENT IN THE TWENTIETH CENTURY 308, 309 (Brian Hosmer & Colleen O’Neill, eds., 2004) (defining "tribal capitalism" as an approach to development that seeks a balance between "community and cultural protection and the enhancement of tribal sovereignty" on one side of the scale, and "material gains" on the other).


98. See THOMAS SOWELL, APPLIED ECONOMICS: THINKING BEYOND STAGE ONE 247 (2009) (noting that history has shown that nations that draw upon the expanded universe of
development planners have noted that "developing reservation economies is vital to sustaining and developing Native American cultural identities." By deciding how to participate in the global financial system, what types of businesses to allow on their lands, and what economic ventures a community will support, tribal governments are in fact asserting sovereignty—a necessary step towards economic development—rather than losing it. Traditional Native American values do not include poverty, and time-honored values are useless if there is nobody left on the reservation to practice them.

What is important is that developers emphasize that tribes do not seek to preserve a static culture, nor do they desire to become the "non-Indian, Hollywood version of iconic culture." Indeed, perhaps the most human experience are better off economically).


100. See DUANE CHAMPAGNE, SOCIAL CHANGE AND CULTURAL CONTINUITY AMONG NATIVE NATIONS 61–62 (2007) ("Market competition forces the Indian communities to consider and engage in market enterprise, but they wish to do it under their own terms, which means subordinating capitalist accumulation to collective goals of community and cultural and political enhancement and preservation."); Miller, supra note 94, at 1304 (describing financial choices as exercises of sovereignty).

101. See Kristy Gover, Genealogy As Continuity: The Growing Tribal Preference For Descent Rules in Membership Governance in the United States, 33 AM. INDIAN L. REV. 243, 287 n.170 (2009) (noting that many young Indians are leaving the reservations to join the military, likely because of a lack of employment opportunity on reservation (citing John Collier, The Indian in a Wartime Nation, 223 ANNALS AM. ACAD. OF POL. & SOC. SCI. 29, 32 (1942)); T.S. Twibell, Rethinking Johnson v. M’Intosh (1823): The Root of the Continued Forced Displacement of American Indians Despite Cobell v. Norton (2001), 23 GEO. IMMIGR. L.J. 129, 198 (2008) ("Indians are left with weak economies with little opportunity, which results in more and more Indians leaving their reservations."); see also, e.g., ELAINE HANSEN CLEARY, A THEMATIC UNIT ABOUT SOUTHWEST INDIANS 38 (noting that many of the Papago of southern Arizona are living and working in cities rather than on the reservation).

102. STATE OF NATIVE NATIONS, supra note 18, at 13. Cornell and Kalt define "culture" as "(1) the cognitive paradigms through which people define and communicate the proper and the possible, and (2) the corresponding informal norms and implicit contracts by which groups of people reward and penalize each other for the group-affecting behavior they engage in." Cornell & Kalt, Where’s the Glue?, supra note 69, at 447.
menacing threat to Native sovereignty is the perspective of non-Indians that tribal governments can never be legitimate because what a "real government" is and what a "real Indian" is are mutually exclusive—that Native nations lose their "Indianess" as they become more conventional. These perceptions must be eradicated. The U.S. public—but especially judges and lawyers—must be re-educated about the sovereign status of Native nations. The key to getting there is to use traditional knowledge to inform the future of Native nations, so that the tribe’s identities are not those of "poor Indians," or "casino-rich Indians," but sources of self-conception and awareness that serve to support the lives of Native persons. By providing the resources to achieve cultural integrity and self-determination, escalating economic development on tribal lands supports tribal culture rather than damaging it.

The question then arises: How are tribes to develop economically without discarding their culture and tradition? The first step is to realize that economic development and native traditions are not diametrically opposed. A large amount of research illustrates that "throughout known history, American Indian people and nations were not opposed to economic activity." Rather than fighting against development, tribes must redefine

103. See State of Native Nations, supra note 18, at 372 (explaining that many non-Indians view primitiveness as a necessary element of true Indian identity).
104. See Brenda Austin, NNABA Strongly Supports Sonia Sotomayor’s Nomination, Indian Country Today (July 1, 2009), http://www.indiancountrytoday.com/national/49182597.html (last visited Oct. 6, 2010) (“Tribal courts, their judges and appellate court justices are often misunderstood. . . . Practitioners are often unprepared when they run into Indian law, and it is this lack of knowledge that has led to a number of bad decisions affecting all of Indian country.”) (on file with the Washington and Lee Law Review); Jacqueline Johnson, Defending Tribal Sovereignty, in State of Native Nations, supra note 18, at 373 (describing the need for awareness of the sovereign status of tribes). Judge Cavanagh, for example, has advocated for circulating Indian law materials through Bar Associations. See Michael C. Cavanagh, Michigan’s Story: State and Tribal Courts Try to Do the Right Thing, 76 U. Det. Mercy L. Rev. 709, 717 (1999) (approving of the Michigan State Bar Association’s circulation of Indian law materials).
105. See State of Native Nations, supra note 18, at 13 (explaining the need for a traditionally informed concept of Indian identity).
106. See Miller, supra note 94, at 139 (noting the positive impact that economic development has on native culture); State of Native Nations, supra note 18, at 112 (explaining the relationship between prosperity and cultural preservation).
107. See State of Native Nations, supra note 18, at 112 (noting that economic development can help to preserve native traditions).
108. Miller, supra note 94, at 1302; see also Manley A. Begay et al., Development, Governance, Culture: What Are They and What Do They Have to Do With Rebuilding Native Nations? in Rebuilding Native Nations: Strategies For Governance And
development for themselves in a way that matches their own culture and tradition, embracing all outcomes and strategies. One Native nation may imagine a community and economy heavily integrated into the market-oriented activities of the neighboring society. Another may imagine a community made up largely of subsistence hunters and trappers. Yet another may envision a hybrid economy that mixes customary and market-based activities with continuing transfers from other governments that are fulfilling their treaty obligations. Defined in this way, economic development is "the process by which a community or nation improves its economic ability to sustain its citizens, achieve its sociocultural goals, and support its sovereignty and governing process." Culture, being the meta-enforcer of any nation's mechanisms

DEVELOPMENT 39 (Miriam Jorgensen, ed., 2007) (stating that capitalism and indigenous culture are not necessarily in tension); Robert J. Miller, Economic Development in Indian Country: Will Capitalism or Socialism Succeed?, 80 OR. L. REV. 757, 768 (2001) (noting that American Indians have long recognized permanent property rights); Selden, supra note 95 ("American Indians can hold onto their culture and still be successful . . . . What they can't do is keep 'feeling sorry for ourselves and cursing the white man.'")

109. This type of economic development has been termed "measured separatism." See Matthew L.M. Fletcher, Indian Tribal Businesses and the Off-Reservation Markets, 12 LEWIS & CLARK L. REV. 1047, 1056 (2008) ("M[ea]sured separatism often allows tribes to maintain their own private communities while they engage in sophisticated commercial and political activities involving non-Indians.").

110. Begay et al., supra note 108, at 36–37. For an example of how Native Nations are using the internet to promote culture, improve social services, and assert sovereignty, see Tara Tidwell Cullen, Sovereignty Unplugged, 29 CULTURAL SURVIVAL Q. 32, 32 (2005) (explaining how the Navajo Nation has used wireless internet to more efficiently provide services and devolve governmental functions to local chapters); ROBERT ALAN HERSHEY, GLOBALIZATION AND THE TRANSFORMATION OF CULTURES & HUMANITY: A CURRICULUM AND TOOLKIT FOR THE EFFLORESCENCE OF LEGAL AND BUSINESS SCHOOL EDUCATION IN ECOLOGICAL LITERACY, THE FUTURE OF LIFE ON PLANET EARTH, AND THE INTERCONNECTEDNESS OF SOCIAL INQUIRY, RESPONSIBILITY, AND JUSTICE 114–25 (forthcoming 2010), available at http://www.ecoliteratelaw.com/Globalization_By_Robert_A_Hershey.pdf ("Currently, Indigenous peoples are utilizing tools such as video conferencing technology, digitization of documents, and radio broadcast over the Internet. The majority of these technologies are used to preserve and promote Indigenous culture, tradition, history, and human rights advocacy.").

111. Begay et al., supra note 108, at 36; see also JAMES S. FRIDERS & RENE R. GADacz, ABORIGINAL PEOPLES IN CANADA 4 (7th ed. 2005) ("Economic development is not the same as economic growth. Economic growth refers to an increase in the productive capacity of an area's economy, while economic development reflects a change in the structure of an area's economy . . . .")
of organization and control, is extremely vital to development.\textsuperscript{112} Economy is integrally intertwined with culture.

Tribes and the federal government must realize that there is no single pathway to successful economic development. Rather than being an obstacle to successful development, cultural match—developing strategic and realistic connections between existent cultural values and standards and those required of economic development—is a solution to the disparity that exists in Indian country—a solution that every Native nation possesses and can access effortlessly.\textsuperscript{113} As stated by the Harvard Project, "[t]he lesson is quite general across Indian Country . . . . Foreign systems of government that do not fit with a people's own standards as to how they should self-rule are prime causes of nations in trouble."\textsuperscript{114} The critical concern is that any endeavor that the tribe embarks on—be it an economic development project or setting up a new governing institution—should match the tribe's current indigenous ideas—be they remnants from older traditions or products from a tribe's contemporary experience.\textsuperscript{115} Studies have repeatedly shown that economic development fails where cultural match is low, but thrives where cultural match is high.\textsuperscript{116}

III. Solar Energy

"It's good to be a part of using the gifts that the creator gave us in helping us to take care of Mother Earth. It is now appropriate that First Nations take the lead in demonstrating how to live without fossil fuels once again."

-- Chief Gordon Planes, T'Sou-ke Nation

\textsuperscript{112} See Cornell & Kalt, Where's the Glue?, supra note 59, at 449 ("[I]t is only the implicit and informal contracts of culture that stand as the meta-enforcers of a society's mechanisms of control and organization.").

\textsuperscript{113} See Begay et al., supra note 108, at 53 (stating that diversity of culture is the solution for the problem of economic growth).

\textsuperscript{114} State of Native Nations, supra note 18, at 20.

\textsuperscript{115} See Cornell & Kalt, Two Approaches, supra note 22, at 25 (noting the importance of cultural match); see also Begay et al., supra note 108, at 47-53 (discussing the positive impact of cultural match on economic development).

\textsuperscript{116} See Cornell & Kalt, Two Approaches, supra note 22, at 25 (noting the relationship between cultural match and economic development).

This section will unfold in three co-dependent parts. First, it will discuss the benefits that tribes may reap by implementing solar projects—whether they are on or off of tribal land, made in cooperation with outside investors or with federal or state governments, or simply to meet the energy needs of their people. Second, it will address economic development as related to the implementation of solar energy projects, arguing that such projects support and sustain practical sovereignty, capable institutions, and cultural match. Finally, addressed in their respective subsections, the Article will give instructions, for both tribal governments and federal or state law and policy makers, on how to help make these projects profitable, sustainable, and beneficial for all.\textsuperscript{118}

\textit{A. General Benefits}

\textit{1. Rural Areas Without Electricity}

Because small-scale solar energy projects are "highly economical, particularly to provide power for lighting, refrigeration, irrigation, and communication," poor and remote areas on tribal lands that are not served by electricity\textsuperscript{119} would benefit directly from solar projects.\textsuperscript{120} Although

\textsuperscript{118} Without a doubt, instruction is needed. \textit{See} Elizabeth Furse, \textit{Foreword to MILLER, supra} note 81, at xii (noting that "the majority of the members of the House and Senate are just as uneducated about tribes . . . as the rest of the population . . . . It is shocking that the members of Congress with such awesome powers over the tribes should be so ill informed . . . .").

\textsuperscript{119} \textit{See, e.g., supra} notes 15–16 and accompanying text (discussing the low percentage of Native Americans with access to electricity, and the high electricity rates paid by native Americans).

\textsuperscript{120} \textit{See} Richard L. Ottinger & Rebecca Williams, \textit{Renewable Energy Sources for Development}, 32 ENVTL. L. 331, 333 (2002) (discussing the benefits of renewable resources for poor communities). For example, in rural areas, solar light systems are "100 times more efficient than kerosene and 500,000 times more efficient than candles." \textit{See id.} at 338 (noting that China is currently using photovoltaic energy to respond to the basic services needed by its rural citizens); \textit{see also} Dr. Peter De Groot, \textit{A Photovoltaic Project in Rural Africa: A Case Study}, 10 RENEWABLE ENERGY 163, 165–68 (1996) (noting that photovoltaic systems are being used to supply power to rural areas in Africa); Howard A. Lerner, \textit{Cleaning, Greening, and Modernizing the Electric Power Sector in the Twenty-First Century}, 14 TUL. ENVTL. L.J. 277, 279 (2001) ("[T]he cost of clean renewable energy is also plummeting as . . . solar power technologies have improved dramatically"); Shyam S. Nandwani, \textit{Uses of Solar Energy in Costa Rica}, 31 RENEWABLE ENERGY 689, 693–99 (2006) (describing the potential uses of solar energy in Costa Rica); Tapan Munroe, \textit{Munroe: China Passes America in Green Energy}, CONTRA COSTA TIMES, Sept. 2, 2009 (noting that
initial costs are high, the price of photovoltaic panels, the rectangular panels that collect the sun’s energy, has been declining for the last several years. When properly installed and maintained, these systems require modest attention and are a great source of locally generated power. When developed locally, these small-scale solar developments can also supply income for tribes that have access to the grid, as they can sell their excess power to traditional utilities.

2. Environmental Protection

Conventional electricity generation, the largest source of air pollution in the United States, causes substantial damage to human health, and,

China has experienced an increased demand for photovoltaic cells—so much so that “China has moved ahead of its competitors in the race to become the dominant player in the development of energy technologies”; see generally Judith Alazraque-Cherni, Renewable Energy for Rural Sustainability in Developing Countries, 28 BULL. SCI. TECH. & SOC’Y 105 (2008).


122. See Leah Beth Ward, One of the World’s Largest Solar Projects is Planned Near Cle Elum, YAKIMA HAROLD REPUBLIC, Oct. 31, 2009, at A1 (“This year alone the price has dropped 17 percent, according to research published in October by the Lawrence Berkeley National Laboratory at the University of California.”).

123. See De Groot, supra note 120, at 163 (“Properly installed and maintained, [photovoltaic] systems require little attention, and there are thousands of systems in use in rural areas throughout the world.”); Richard Ottinger & Mindy Jayne, Global Climate Change Kyoto Protocol Implementation: Legal Frameworks for Implementing Clean Energy Solutions, 18 PACE ENVT'L. L. REV. 19, 60 (2000) (noting that photovoltaic systems have successfully “powered off-grid loads and have been installed on transmission towers, in place of transformers, to handle small loads”).

124. See John W. Ragsdale, Jr., Alternative Communities for the High Plains: An Exploratory Essay on Holistic Responses to Issues of Environment, Economy and Society, 34 URB. LAW. 73, 83 (2002) (noting that “solar and wind power systems can create surpluses for exportation to the national power grid”); see also Nandwani, supra note 120, at 700 (noting that in Costa Rica, power generated by private solar developments accounts for about 12.3% of the total power put into the grid); Judith LaVoie, Small T’Sou-ke Reserve One of Most Solar-Power-Intensive in Country, VICTORIA TIMES COLONIST, July 18, 2009, at A3 (discussing the T’Sou-ke’s solar project and the income generated from selling their excess power to the grid).

125. See Benjamin K. Sovacool & Christopher Cooper, State Efforts to Promote Renewable Energy: Tripping the Horse With the Cart?, 8 SUSTAINABLE DEV. L. & POL’Y 5, 5 (2007) (“Conventional electricity generation is by far the largest source of air pollutants.”).
as an industry, is the largest contributor to global warming in the country. Native peoples are "directly and disproportionately affected" by the byproducts of conventional energy, as well as the attempts to mitigate its effects. Solar energy is approximately ten times less carbon intensive than conventional energy, and is far more efficient than traditional energy uses. By promoting solar technologies, which displace conventional types of electricity generation, tribes would substantially decrease harm to their citizens and the environment.


128. Indigenous Peoples' Global Summit on Climate Change, Thematic Sessions, http://www.indigenoussummit.com/servlet/content/Thematic%20Sessions.html (last visited Oct. 1, 2010) (on file with the Washington and Lee Law Review); see STATE OF NATIVE NATIONS, supra note 18, at 179, 188 (discussing the impact that conventional energy byproducts have had on the Native nation environments and culture).

129. See Sovacool & Cooper, supra note 125, at 8 ("Coal plants are around ten times more carbon intensive than solar technologies.").

130. See Ottinger & Williams, supra note 120, at 338 ("Solar energy often is far more efficient than existing energy uses.").

131. See id. (describing several applications of renewable energy with the potential to replace conventional energy sources). Although it has been argued by some that solar energy is unsustainable because of the amount of water that it uses, see, e.g., Todd Woody, Alternative Energy Projects Stumble on a Need for Water, N.Y. TIMES, Sept. 30, 2009, at B1 (discussing the water intensive consequence of certain alternative energy projects), this can be sidestepped by implementing photovoltaic projects, rather than thermal solar projects.
3. Security of Investment

Generally, the power market is a safe investment. 132 In 1935, the federal government created the Federal Power Commission to set the electricity rates such that power-generating utilities would receive a guaranteed profit. 133 Also as part of this regulation, each utility company was given exclusive control of a service area, but had an obligation to serve everyone, 134 guarantee against blackouts, and assure a reasonable rate relative to the cost of distribution and production. 135 By the mid-1960s, due to technological and financial plateaus realized by then-current monopolies, alternative providers began seeking entry into the market, offering better and cheaper energy. 136 In response, the Carter Administration introduced the National Energy Act, 137 which encouraged increased energy efficiency.


134. See id. ("Each utility was given exclusive control over a given service area[,] ... but it had an obligation to serve everyone.").


modernized utility ratemaking, stimulated conservation, and created a new market in electricity by requiring utilities to buy from non-utility owned "small power production facilities" and to "pay what it would have cost them to produce the power themselves." Today, independent energy producers are able to produce as much energy as they can, use what is needed for themselves, and sell the rest to utilities—and traditional utilities are legally obligated to buy their power. Further, because it allows them


138. See Tomain, supra note 136, at 451 ("The National Energy Act had several purposes, including...increasing energy efficiency, modernizing utility ratemaking, stimulating conservation, [and] encouraging the creation of a new market in electricity....").

139. Franklin, supra note 133, at 164; see also Janal M. Kalis, Comment, The Role of Antitrust Law in Promoting Competition in Electricity Generation and Transmission, 11 J. ENERGY NAT. RESOURCES & ENVTL. L. 287, 287 (1991) (noting a "trend in the electric utility industry toward increased reliance on generation by independent producers"). In order to qualify as a small power production facility, the facility must be "qualified" by the Federal Energy Regulatory Commission and meet the required standards. See 18 C.F.R. § 292.203 (2010) (setting requirements for the qualification of small power production facilities, cogeneration facilities, and hydroelectric small power production facilities, and listing the exemptions from these requirements).

140. Under the National Energy Act's Public Utility Regulatory Policies Act of 1978, Pub. L. No. 95-617, 92 Stat. 3117 (codified as amended in scattered sections of 15 U.S.C., 16 U.S.C., 30 U.S.C., 42 U.S.C., and 43 U.S.C.), utilities must conserve electricity, use energy resources efficiently, and encourage equitable rates. Congress granted the Federal Energy Regulatory Commission (FERC) the authority to implement these requirements through regulations. 16 U.S.C. § 824(a) (1988). FERC then passed these responsibilities on to the states, who pass them to local utility commissions. See id. § 824(b)(1) ("[E]xcept as provided in paragraph (2) [this Act] shall not apply to any other sale of electric energy or deprive a State or State commission of its lawful authority now exercised over the exportation of hydroelectric energy which is transmitted across a State line."); see also John E. Mogk & F. Lepley Jr., PURPA and the Evolving Regulation of Cogeneration—A Guide for Prospective Cogenerators Focusing on the Greater Detroit Resource Recovery Facility, 35 WAYNE L. REV. 1051, 1063 (1989) (discussing the preemption of states in the regulation of retail sales of electricity). U.S. public utility commissions require that "utilities meet customer demands at all times." Kalis, supra note 139; see also Franklin, supra note 133, at 164–65 (discussing the Public Utility Regulatory Policies Act's requirement that utilities "buy power from non-utility power producers and required them to pay what it would have cost to produce it themselves"). As far as distribution goes, the Energy Policy Act of 1992 made it even easier for independent energy producers to enter the market by requiring
to retain control of the market, utilities welcome independent producers with open arms. 141

 Particularly, the solar market is an extremely safe investment. First, it has been estimated that more solar energy strikes the earth in one hour than all of the energy used by the planet in an entire year. 142 Yet, electricity produced by solar technologies "provides for less than 0.1 percent of the world’s electricity." 143 Global energy consumption is expected to double by 2040 and triple by 2060. 144 Solar energy is abundant, free, clean, widely available, and simple to extract 145—as opposed to traditional energies, the cost of which will inevitably rise as electricity demand grows and the availability of fossil fuel declines. 146 Investors have virtually limitless potential to tap the energy of the sun and convert it to money 147 Tribes should take advantage of this untapped infinite resource. 148 Second, as

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141 See Kalis, supra note 139, at 300 ("[S]ome utilities accept and even welcome the independent producers so long as the utilities retain control of the generation and transmission market."). Simply, if all power is bought by one utility, there is a necessary monopoly because other utilities have no power to buy. Id. at 288.

142 See Indigenous Peoples’ Global Summit on Climate Change, supra note 128 ("More solar energy from the sun strikes the earth in one hour than all the energy consumed by the planet in an entire year.").

143 Id.

144 See Steven Ferrey, Power Paradox: The Algorithm of Carbon and International Development, 19 STAN. L. & POL’Y REV. 510, 514–15 (2008) ("It is expected that global energy use will double by 2040 and triple by 2060.").

145 See X.J. Zhang & R.Z. Wang, A New Combined Absorption-Ejector Refrigeration and Heating Hybrid System Powered by Solar Energy, 22 APPLIED THERMAL ENGINEERING 1245, 1247 (2002) ("Solar energy is free, abundant, clean, and widely available and has no fossil fuel consumption"); see also Vanderburg, supra note 135 at 99 (stating that the ratio of desired to undesired effects of conventional energy strategies (presently exaggerated by deregulation) continues to decline notwithstanding some momentary blips related to improvements such as strategies for "improving energy end-use efficiency" and "integrated resource planning").

146 See Steven Ferrey, Gate Keeping Global Warming: The International Role of Environmental Assessments and Regulation in Controlling Choices for Future Power Development, 19 FORDHAM ENVTL. L. REV. 101, 117 (2009) ("The sheer dollar cost of fossil fuels will rise as demand for electricity grows and fossil fuel becomes more scarce and harder to obtain.").

147 See id. (noting that the economics of energy "inevitability present[] a technological and economic advantage for whichever nations build power infrastructure now, at least in part, around non-carbon fuels").

148 See Susan Montoya Bryan, Indian Tribe Sees Bright Future in Solar Power,
noted above, the federal government actively supports the implementation of solar projects as an economic development tool for tribes. Experts have confirmed that U.S. demand for solar energy will continue to rise as the government tries to fulfill its commitment to reduce greenhouse gases, and tribes will likely continue to have a large role in the government's plan. Third, solar power is commercially attractive. Recent research has shown that, even in rural communities assumed to be fossil fuel income-dependant, there is growing citizen support for sustainable development and environmental preservation through alternative energies. Even labeling a product with a "sustainable technology" sticker has a substantial impact on consumer choice. Fourth, solar projects are relatively easy. Photovoltaic technology is known to be extremely viable in much of Indian country, where "many small systems and a growing number of large systems in operation [are] being added each year." Photovoltaic


149. See id. (noting that the federal Tribal Energy Program provided $16.5 million in funding for nearly one hundred projects between 2002 and 2008, and a 2005 federal law allows for up to $20 million in funding for the program every year).

150. See id. (discussing the U.S.'s growing demand for renewable energy and reductions in greenhouse gases, and that Indian tribes might have a role in achieving these goals).

151. See Zhang & Wang, supra note 145, at 1247 (examining the design and commercial attractiveness of solar energy in the specific implementation of solar solid absorption refrigeration systems).

152. See Keith Bennett & Mark K. McBeth, Contemporary Western Rural USA Economic Composition: Potential Implications for Environmental Policy and Research, 22 Envtl. Mgmt. 371, 377 (1998) (noting that contrary to general belief, rural communities are not as dependent on resources and are starting to give more widespread support to sustainable energy development and environmental preservation).


154. Augustine Band of Cahuilla Indians, Energy Conservation and Development Project—Energy Options Analysis, Final Report 21, available at http://www.osti.gov/bridge/servlets/purl/934737-B4B8PO/934737.pdf ("Photovoltaic application is known to be technically viable in the region, with many small systems and a growing number of large systems in operation and being added each year.")
technology is reputable and uncomplicated, and grid interconnection is usually clear-cut with proper design and planning.\textsuperscript{155} Fifth, carbon offsets are an extremely profitable market, and are likely to continue to be so.\textsuperscript{156} Solar projects are able to sell—internationally or domestically—offset credits to government agencies, individuals, or companies looking to neutralize their own emissions from fossil fuel consumption, greenhouse gas emissions, and electricity use.\textsuperscript{157} Increasing international attentiveness to "green energy" has led analysts to predict that the offset market will become particularly lucrative.\textsuperscript{158} Last year, for example, "the global carbon market reached $136 billion . . . , up from $56 billion in 2007, and offset roughly 8.2 billion tons of carbon emissions."\textsuperscript{159} Finally, there is a high likelihood that the federal government will soon establish a national "renewable portfolio standard" (RPS), which mandates that electric utilities acquire a definite percentage of their electricity "from renewable resources or purchase renewable energy credits" via independent energy producers.\textsuperscript{160} Although RPS has not made it into law yet, RPS legislation has passed the Senate three times since 2002,\textsuperscript{161} the House more recently in 2007,\textsuperscript{162} and

\begin{itemize}
\item \textsuperscript{155} See id. ("[Photovoltaic] technology is straightforward and mature, and grid interconnection . . . is clear-cut with proper design and planning.").
\item \textsuperscript{157} See National Wildlife Federation, supra note 156, at 16 (describing the variety of carbon offset purchasers).
\item \textsuperscript{159} National Wildlife Federation, supra note 156, at 16.
\item \textsuperscript{160} Joshua P. Fershee, Changing Resources. Changing Market: The Impact of a National Renewable Portfolio Standard on the U.S. Energy Industry, 29 Energy L.J. 49, 49 (2008); see also Ottinger & Williams, supra note 120, at 349–50 (describing the Renewable Portfolio Standards that have been adopted in several states and foreign countries).
many states have independently implemented their own RPS laws. Support for RPS legislation is stronger than ever. In all, even without regard to the environmental benefits, solar projects have proven to be safe investments.

4. Economic Advantages

Tribes, as "domestic dependent nations," have economic advantages over non-Native developers. Tribes who organize companies to carry out tribal development projects as "an arm of the tribe so that its activities are properly deemed to be those of the tribe" have particular advantages.

reliable energy"; Energy Policy Act of 2003, H.R. 6, 108th Cong. (enacted) (stating the act's purpose of encouraging "states to coordinate, on a regional basis, state energy policies to provide reliable and affordable energy services to the public while minimizing the impact of providing energy services on communities and the environment"); Energy Policy Act of 2002, H.R. 4, 107th Cong. (enacted) (stating the act's purpose of encouraging "states to coordinate, on a regional basis, state energy policies to provide reliable and affordable energy services to the public while minimizing the impact of providing energy services on communities and the environment").


163. See Fershee, supra note 160, at 52 (noting that over "twenty-five states and the District of Columbia have RPS programs in place, including the nations three most populous states: California, Texas, and New York"); Ottinger & Williams, supra note 120, at 349–50 (noting that RPS laws have been implemented in Arizona, Connecticut, Maine, Massachusetts, Nevada, New Jersey, Texas, and Wisconsin—as well as the UK, Denmark, Germany, and Japan).

164. See Fershee, supra note 160, at 52, 77 (discussing the increasing support for RPS legislation in Congress and in many state legislatures).

165. See Ottinger & Jayne, supra note 123, at 86 (noting that "energy savings are so compelling that they should be undertaken just to save money, regardless of whether the scientific community is right about the risks of global warming").

166. See Ferrey, supra note 144, at 520 (stating that in developing nations, renewable energy projects are often "justified without regard to their [green house gas] benefits").


168. Allen v. Gold Country Casino, 464 F.3d 1044, 1046 (9th Cir. 2006); see Rev. Rul. 67-284, 1967-2 C.B. 55 (stating that the IRS treats tribal business enterprises as taxable if they are formed using state laws).
Tribes can create a Section 17 corporation or tribally chartered entities (i.e., a tribal utility) to generate revenue while taking advantage of their situation as a sovereign entity. As the court stated in Allen v. Gold Country Casino, where a tribe owns and operates an economic development project, "there is no question that these economic and other advantages inure to the benefit of the Tribe."

First, because tribes are independent sovereign nations, neither states nor the Federal Energy Regulatory Commission (FERC) can block solar projects. Currently, states are failing to site the number of power plants

169. See 25 U.S.C. § 477 (2006) (providing the requirements and restrictions for the incorporation of a tribe). A Section 17 corporation is a federally chartered corporation, under 25 U.S.C. § 477. Under a Section 17 corporate umbrella, the tribal corporation becomes a separate legal entity from the (Section 16) governmental entity. The tribal corporation has the powers to contract, to pledge assets, and to be sued. However, Section 17 corporations are disadvantageous in that they do not allow the flexibility to create subsidiary corporations; all contracts, leases, and loans are subject to BIA oversight and approval; the charter's "sue and be sued" clause has been interpreted to waive tribal sovereign immunity; and the corporate charters cannot be amended without BIA approval. Eric F. Facer, Taxation Issues, in THE GAMING INDUSTRY ON AMERICAN INDIAN LANDS at 205, 210–12 (PLI Corporate Law & Practice, Course Handbook Series No. B4-7077, 1994).

170. These corporate forms are preferable to state chartered corporations, where state property taxes may apply. See Confederated Tribes of Chehalis Reservation v. Thurston County Bd. of Equalization, No. C08-5562BHS, 2010 WL 1406524, at *9, *10 (W.D. Wash. Apr. 2, 2010) (finding that a casino enterprise, with 49% outside ownership, must pay state property taxes). The ability to collect those taxes, however, is in question. See Oneida Indian Nation v. Madison County, 605 F.3d 149, 160 (2d Cir. 2010) (stating that while a tribe might owe taxes in some instances, the courts have no ability to enforce collection remedies).

171. See Allen v. Gold Country Casino, 464 F.3d 1044, 1048–49 (9th Cir. 2006) (finding that the casino acted as an arm of the tribe, and as such maintained its sovereign immunity from a suit by a former employee).

172. Id. at 1047. See Debora Juarez & Gabriel S. Galanda, Leveraging Tribal Sovereign Economic Advantages to Attract Private Investment in Indian Country, INDIAN L. NEWSL., Apr. 2005, at 1 (highlighting some of the advantages of investing with Native nations).

173. See E-mail from Jack Muse, Federal Energy Regulatory Commission, Office of External Affairs, to author (Apr. 6, 2010, 15:50:47 CST) ("FERC does not have jurisdiction over the siting of electricity generation except in the licensing of state, private and municipal hydropower projects.") (on file with the Washington and Lee Law Review); see also Tribal Energy Self-Sufficiency Act and the Native American Energy Development and Self-Determination Act: Hearing on S. 424 and S. 522 Before the S. Comm. on Indian Affairs, 108th Cong. 144 (2003) [hereinafter TESSA Hearing] (statement of Affiliated Tribes of Northwest Indians—Economic Development Corporation) (noting that tribes "have always had siting decisions on tribal lands"). However, if a tribe chooses to connect into the grid, in order to sell excess energy, FERC's interconnection rules will likely apply. See RUSTY HAYNES & CHUCK WHITAKER, CONNECTING TO THE GRID: A GUIDE TO DISTRIBUTED
needed to meet the country’s projected energy demands.\textsuperscript{174} A major source of the problem is the bureaucratic process by which states (and in some circumstances local governments) are able to deny power projects: States have the right to block generation expansion projects (efforts to build new plants) unless they "provide a significant in-state benefit, no matter how large a benefit the proposed plant may provide on a regional basis."\textsuperscript{175} Particularly, renewable energy projects are subject to a plethora of bureaucratic barriers.\textsuperscript{176} Renewable energy plants must be sited where the resource is located—in non-Indian country, these are often highly valued public areas that voters are unwilling to sacrifice.\textsuperscript{177} "Not in My Backyard" and "tragedy of the commons" collective action problems loom large here.\textsuperscript{178} Because of location, these projects are likely to fall under the jurisdiction of land stewards such as the BLM or the U.S. Forest Service, requiring a federal review under the National Environmental Policy Act (NEPA)\textsuperscript{179}—which can take years and cost millions of dollars.\textsuperscript{180} Because

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GENERATION INTERCONNECTION ISSUES 4 (5th ed., 2007) ("Furthermore, in May 2005, the Federal Energy Regulatory Commission (FERC) adopted interconnection standards for generators up to 20 megawatts (MW) in capacity.").
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\textsuperscript{174} See Elise N. Zoli, \textit{Power Plant Siting in a Restructured World: Is There a Light at the End of the Tunnel?}, 16 \textsc{Nat. Resources & Env't} 252, 252 (2002) ("The focus on siting also responds to the perceived dearth of sizeable, base-load power plant sitings in the 1980s and 1990s, particularly in states such as New York and California, despite indications that demand is outpacing available (or, for purposes of this discussion, installed) electric capacity.").


\textsuperscript{176} See Robert D. Khan, \textit{Siting Struggles: The Unique Challenge of Permitting Renewable Energy Power Plants}, 13 \textsc{Electricity} J. 21, 21 (2006) (arguing that "renewable developers have a more difficult time securing their permits than fossil fuel project developers have obtaining theirs").

\textsuperscript{177} See \textit{id.} at 23 ("Sparks fly when lands viewed as public viewscapes (even if they are not publicly owned) appear threatened. Unfortunately, these lands are where developable renewable resources are to be found.").

\textsuperscript{178} See \textit{id.} at 26–29 ("'Not in My Backyard' syndrome known as 'NIMBY' is ... essentially a \textit{de facto} siting or zoning regulation for all technological land uses. Local groups who are faced with the prospect of an unwanted technological facility locating next door take political steps to prevent [it] ... " (quoting ROBER THAYER, \textsc{Gray World}, \textsc{Green Heart} 73 (John Wiley & Sons, 1994))).

\textsuperscript{179} See 42 U.S.C. §§ 4321–4347 (2006) (establishing the Environmental Protection Agency and transferring to it the administration of various environmental laws and programs).

\textsuperscript{180} See Katie Kendall, \textit{Note, The Long and Winding "Road": How NEPA
they are so high-cost up front, solar projects require large commitments of funding to initiate.\textsuperscript{181} Traditional investors are often distracted from advancing funds, though, because the return is not immediate.\textsuperscript{182} Without access to funding, these projects remain unbuilt.\textsuperscript{183} Ironically, tribes themselves are often an impediment to these projects. In exercising their treaty rights, tribes often have legal standing to object to projects on federal lands.\textsuperscript{184} In Oregon and Washington, for example, tribes can intervene in any Bonneville Power Administration action.\textsuperscript{185}

Solar projects on tribal lands, however, are not subject to many of these encumbrances. Decisions about development and siting in Indian country are fully up to the tribe. As a part of its federally mandated "right of consent," a tribe or tribally controlled corporation may choose to develop its own project, or to negotiate with outside investors, uninhibited by state or federal constraints in most instances.\textsuperscript{186} The only time that the federal

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Noncompliance for Preservation Actions Protects the Environment, 69 Brook. L. Rev. 663, 665 (2004) (noting that a typical Environmental Impact Statement "can cost millions of dollars to produce" and can take up to twelve years to complete); see generally Council of Environmental Quality, The National Environmental Policy Act: A Study of Its Effectiveness After Twenty-Five Years (1997).
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\textsuperscript{181} See Ferrey, supra note 144, at 546 ("Renewable power resources are even more capital-intensive than conventional power resources, and thus require even larger commitments of capital to initiate.").

\textsuperscript{182} See Buttonwood: Backing Greens with Greenbacks, Economist, May 10, 2008, at 82, 82 ("[E]nvironmental companies require large amounts of capital—for building a wind farm or a tidal barrage . . . . The returns are highly uncertain, because the big profits (if any) are many years away.").

\textsuperscript{183} See Ferrey, supra note 144, at 546 ("Without access to significant capital, electric power generation and distribution facilities remain unbuilt.").


\textsuperscript{185} See Khan, supra note 176, at 25 ("In the Northwest, for example, tribes can intervene in any action planned by the Bonneville Power Administration.").

\textsuperscript{186} See E-mail from Darryl Francois, U.S. Dep’t of Interior, Dep’t of Indian Affairs, Division of Indian Energy Policy Development, to author (Apr. 7, 2010, 17:47:25 CST) ("Decisions about development on tribal lands are the decision of the tribal government. The tribes retain the 'right of consent' to any activities that occur on tribal land. A developer approaches a tribe or tribally controlled company and negotiates directly with that entity for land or resource or exploitation.") (on file with the Washington and Lee Law Review). The "right of consent" is mandated by the Energy Policy Act of 2005, Pub. L. No. 109-58, § 1301, 119 Stat. 594, 986 (2005). It was retained in later modifications of the Act, after some debate, largely because of the Energy Policy Act of 2005, Section 1813 Indian
government may interfere with the project is if it affects a federal trust resource (i.e., minerals, water, etc.), or if a lease or sale to a non-tribal entity for a period of more than seven years is involved.\footnote{See generally Report Maintains Status Quo on Indian Rights-of-Way, INDIANZ.COM (May 16, 2007), http://64.38.12.138/News/2007/002945.asp (last visited on Oct. 6, 2010) (on file with the Washington and Lee Law Review).} In that case, the tribe must obtain federal approval, where the "federal action" requires the proper agency to determine that the proposed project "is consistent with all environmental protection statutes as well as historic and archeological protection statutes."\footnote{Francois, supra note 186 (describing when the federal government may impede a tribe’s solar project); see also Robert McCarthy, The Bureau of Indian Affairs and the Federal Trust Obligation to American Indians, 19 B.Y.U. J. PUB. LAND L. 1, 64-67 (discussing the lease and sale of tribal trust lands). The Tribal Economic Development and Contract Encouragement Act (TEDCEA) requires the BIA’s approval for projects that could "encumber" tribal land for a period of seven or more years. \textsection{25 U.S.C. \textsection{81}(b) (2006) ("No agreement or contract with an Indian tribe that encumbers Indian lands for a period of 7 or more years shall be valid unless that agreement or contract bears the approval of the Secretary of the Interior or a designee of the Secretary."). This includes leases to non-Indians, unless specifically covered by other land use agreements listed in 25 C.F.R. 162. See e.g., 25 C.F.R. \textsection{162.607(a) (2010) (Leases for public, religious, educational, recreational, residential, or business purposes shall not exceed 25 years. . . ."). TEDCEA requires disapproval if the contract violates federal law (i.e. NEPA), or does not contain either a remedies provision or a disclosure or waiver of the tribe’s sovereign immunity. \textsection{25 U.S.C. \textsection{81}(d) (2006) (The Secretary . . . shall refuse to approve an agreement . . . if the Secretary . . . determines that the agreement or contract—(1) violates Federal law; or (2) does not include a provision that—(A) provides for remedies . . . or (B) references . . . the right of the Indian tribe to assert sovereign immunity. . . .").} The sun is not a trust resource, but reservation land is, and any large-scale solar facility will likely require the encumbrance of federal land not only for the panels themselves, but also for ancillary facilities as well as rights-of-way to provide access for installation and maintenance.\footnote{E-mail from Roger Taylor, Principal Project Manager, Integrated Applications Office—Tribal Energy Program, National Renewable Energy Laboratory, to author (Apr. 19, 2010, 15:01:37 CST) (discussing the trigger for federal action) (on file with the Washington and Lee Law Review).} This may trigger NEPA "because the BIA Realty Office needs to ‘take action’ regarding use of land held in trust," although each
situation is different. The BLM has pledged only to take into account the most essential factors. The BLM has also made clear a commitment to streamlining the NEPA analysis by employing intergovernmental (i.e., tribal-federal) cooperation. Of course, if an entity of the tribe wants to use tribal land for only tribal purposes—working without an outside partnership—then federal regulation does not apply. Where the energy goes is of no

190. Taylor, supra note 188.

191. See Memorandum from the Dir. of the Bureau of Land Mgmt. to All Field Officials, Solar Energy Dev. Policy, Instruction Memorandum No. 2007-097 (Apr. 4, 2007), http://www.blm.gov/wo/st/en/info/regulations/Instruction_Memos_and_Bulletins/national_instruction/2007/im_2007-097__html (last visited on Nov. 29, 2010) (stating that the BLM will take into account "the applicant's technical and financial capability to construct, operate, maintain and terminate the solar energy facilities" and that "this technical capability can be demonstrated by obtaining the funding, designing, constructing or successfully operating an energy generating project") (on file with the Washington and Lee Law Review).

192. See id. ("It may be possible to combine the required environmental review process for a solar energy development project with other required State or local environmental requirements. This would streamline the process and be consistent with Departmental policy on intergovernmental cooperation."); see also Bureau of Indian Affairs, NEPA Handbook 8 (2005), available at http://www.bia.gov/idc/groups/public/documents/text/idc-000592.pdf ("[T]he Bureau's NEPA process should be coordinated with the tribal decision-making process."). The BIA's NEPA Handbook also requires that "[a]s a part of the NEPA process, Bureau personnel must make a reasonable effort to train persons and organizations whenever it would enable these persons and organizations to more fully participate in the process." Id. at 9. In order to fully cooperate, it has been suggested that tribes create their own NEPA statutes, where a government-to-government relationship with the BIA and the Department of Environmental Quality is assured. See Dean P. Suagee & Patrick A. Parenteau, Fashioning a Comprehensive Environmental Review Code for Tribal Governments: Institutions and Processes, 21 Am. Indian L. Rev. 297, 303 (1997) ("In response to the mandates of these amended statutes, the EPA has issued numerous amendments to its regulations to establish procedures for tribes to be treated as states for a wide variety of purposes.").

193. See Francois, supra note 186 (discussing application of federal regulations). Specifically, when a federal agency has no discretion in how to implement a provision, NEPA does not apply. See Save Barton Creek Ass'n v. Fed. Highway Admin., 950 F.2d 1129, 1136 (5th Cir. 1992) (finding that federal funding alone could not elevate that process into a "proposal for "major Federal action," thus triggering NEPA); Nevada v. United States, 221 F.Supp. 2d 1241, 1248 (D. Nev. 2002) (finding that where "there was no federally approved lease there was no final agency action and, therefore, NEPA was not triggered"). An example of this would be a photovoltaic panel system on the roofs of buildings throughout the community. Also, in accordance with 25 C.F.R. § 224.52 (2008), a Tribal Energy Resource Agreement may address development of all or just a portion of a tribe's energy resources and provide for the tribe to assume all or some of the activities normally carried out by the Department of Interior. NEPA does not apply to these either. See About Tribal Energy Resource Agreements (TERAs),
consequence either, since no "federal action" is required in the sale.\textsuperscript{194} Solar developments on tribal lands will allow the "green revolution" to pick up speed,\textsuperscript{195} devoid of the bureaucratic denial process that solar developers face on State lands and non-Native federal lands. This is a huge advantage.\textsuperscript{196}

Second, when tribes take over services under the ISDEAA, the federal government has a dual mandate to (1) "provide technical assistance to facilitate tribes' assumption of programs," and (2) "provide technical assistance to ensure their compliance" with applicable federal laws.\textsuperscript{197} Further, in \textit{Cherokee Nation v. Leavitt},\textsuperscript{198} the U.S. Supreme Court recently held that the federal government is obligated to fund contract support costs related to self-determination contracts.\textsuperscript{199} The tribe, however, gets to keep 100\% of their appropriations.\textsuperscript{200} Although, as noted above, there are http://teeic.anl.gov/aboutterra/index.cfm (last visited Oct. 5, 2013) ("[A] TERA may address development of all or just a portion of a tribe’s energy resources ... The issuance of a TERA does not affect the applicability of federal law except for ... the National Environmental Policy Act (NEPA).") (on file with the Washington and Lee Law Review); see also \textit{STATE OF NATIVE NATIONS}, supra note 18, at 165 (discussing the advantages of the TERA). At this point, though, there are no TERAs in place with the Department of Interior. See E-mail from Sandra Begay-Campbell, Director of the Native Communities Energy Program, Sandia National Laboratories, U.S. Department of Energy, to author (Apr. 19, 2010, 14:20:30 CST). The lack of interest in TERAs may have to do with a provision in the law indicating that once a TERA becomes effective, the United States "shall not be liable to any party (including any Indian tribe) for any negotiated term of, or any loss resulting from the negotiated terms of, a lease, business agreement, or right-of-way executed pursuant to and in accordance with a [TERA] approved by the Secretary ...." 25 U.S.C. § 3504(e)(6)(D)(ii) (2006).

\textsuperscript{194} Taylor, supra note 188.

\textsuperscript{195} See Taylor, supra note 12 (quoting Keith Harper, member of the Obama-Biden transition team, who stated that "Obama's top energy priorities ... will be difficult to accomplish without closer partnerships with the country's 562 federally recognized tribal communities").

\textsuperscript{196} See supra notes 170–177 and accompanying text (describing the problems with the bureaucratic process of receiving federal funds for renewable projects).

\textsuperscript{197} Benjamin Nuvamsa, \textit{Promoting Self-Determination, ir STATE OF NATIVE NATIONS 63, supra note 18, at 63–64.

\textsuperscript{198} See Cherokee Nation v. Leavitt, 543 U.S. 631, 647 (2005) (finding that where Congress has provided sufficient unrestricted funds, it cannot avoid paying its contractual obligations to Indian nations on the grounds of insufficient appropriations).

\textsuperscript{199} See id. at 638 ("Thus, if [the Government] is nonetheless to demonstrate that its promises were not legally binding, it must show something special about the promises here at issue. That is precisely what the Government here tries, but fails, to do.").

\textsuperscript{200} See Nuvamsa, supra note 197, at 64 ("The law allows tribes to withdraw 100 percent of their annual appropriations.").
problems with the ISDEAA, if used correctly it can create a significant advantage.\textsuperscript{201}

Third, tribes have advantages in government contracting.\textsuperscript{202} In the late 1960s, Indian scholars recognized that if tribes "can work out the basic programs for contracting, they may be able to push into new areas which have been unserviced or only partially serviced in the past."\textsuperscript{203} Today, it is undisputed that contracting has become an important tool by which Native nations can "expand the effective scope of their sovereignty."\textsuperscript{204} Particularly influential in this aspect is a system known as the 8(a) program,\textsuperscript{205} established to provide "full access to the necessary business development and expansion tools available through the [Small Business Administration's] entrepreneurial development, lending and procurement programs."\textsuperscript{206} Under the 8(a) program, tribes are able to obtain sole source federal contracts,\textsuperscript{207} as affiliates or under the larger tribal corporate umbrella, if they can demonstrate a social and economic disadvantage—which is almost always met.\textsuperscript{208} Another advantage is that there is no capped

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  \item \textsuperscript{202} See generally Nicholas M. Jones, Comment, \textit{America Cinches its Purse Strings on Government Contracts: Navigating Section 8(a) of the Small Business Act Through a Recession Economy}, 33 AM. INDIAN L. REV. 491 (2009).
  \item \textsuperscript{203} Deloria, Jr., supra note 82, at 140.
  \item \textsuperscript{204} State of Native Nations, supra note 18, at 21.
  \item \textsuperscript{205} See Minority Small Business and Capital Ownership Development Program, 15 U.S.C. § 637 (2006) (establishing a business development program created to help small businesses, owned and controlled by economically and socially disadvantaged individuals, compete in the American economy and access the federal procurement market).
  \item \textsuperscript{207} See Angelique A. EagleWoman, \textit{Tribal Nation Economics: Rebuilding Commercial Prosperity in Spite of U.S. Trade Restraints—Recommendations for Economic Revitalization in Indian Country}, 44 TULSA L. REV. 383, 412 (2008) ("Within the 8(a) program, Tribal Nation businesses and ANCs are able to obtain sole source contracts, which are contracts that need not be divided among several businesses or be subject to competitive bidding practices.").
  \item \textsuperscript{208} See 13 C.F.R. § 124.109(b)(2) (2009) (stating some of the factors which determine eligibility include: number of tribal members, tribal unemployment rate, per capita income of tribal members, percentage of the local Indian population below the poverty level, and tribal assets as disclosed in a current tribal financial statement).
\end{itemize}
dollar amount for sole source contracts obtained through the 8(a) program (whereas non-Indian contractors are limited in award amount when granted non-competitively).²⁰⁹ It is highly likely that tribes may use the 8(a) program to secure contracts for the development of solar projects on federal lands.²¹⁰ Many of the tribes that have taken advantage of the 8(a) program have seen remarkable results.²¹¹ As stated by the National Congress of American Indians’ President, Joe Garcia, the 8(a) program has served as

²⁰⁹. See 13 C.F.R. § 124.519(a) (2010) (requiring a $100 million cap for revenue-based and employee-based firms, but excluding those owned by an Indian Tribe or an ANC).

²¹⁰. See Commerce and Trade, Small Business Concerns, 15 U.S.C. § 632(g)(1)-(3) (2006) (defining "energy measures" that may be contracted to 8(a) businesses). These include:

solar thermal energy[,] ... photovoltaic cells and related equipment[,] and a product or service the primary purpose of which is conservation of energy through devices or techniques which increase the energy efficiency of existing equipment, methods of operation, or systems which use fossil fuels, and which is on the Energy Conservation Measures list of the Secretary of Energy or which the Administrator determines to be consistent with the intent of this subsection . . . .

Id.

²¹¹. See EagleWoman, supra note 207, at 413 (describing tribal successes in the 8(a) area). The author states:

Examples of the success of tribal corporations entering into the 8(a) program include the Coeur D’Alene Tribe in northern Idaho, which received a contract to provide equipment for the U.S. Army valued at "up to $400 million" through its company Berg Integrated Systems. . . . Another example is from the Winnebago Reservation in Nebraska, home to HoChunk, Inc., a tribal corporation founded in 1995 that has grown into a multi-million dollar enterprise. HoChunk, Inc. has a family of subsidiary companies with most participating in the 8(a) program, including All Native Solutions (computer hardware provider), All Native Services (IT services), Blue Earth Marketing (marketing and advertising agency), HCI Construction (general contractor), and All Native Systems (telecommunication technology and manufacturer of computer hardware).

In Oklahoma, Chickasaw Nation Industries, Inc. (CNI) has become a major contractor for large-scale federal contracts through the 8(a) program as well. . . . One of the 12 companies in the CNI family, the CNI Administrative Services operates contracts with the U.S. Department of Defense, the U.S. Department of Energy, and the U.S. Department of Health and Human Services.

Farther north in Montana, S & K Technologies, Inc. (SKT) is another tribal industry leader that has experienced expansion through its participation in the 8(a) program. The Salish and Kootenai Tribes have developed S & K Aerospace, Inc. and, in addition, S & K Global Solutions, Inc. One of the beginning contracts for SKT was a $325 million eight-year contract to track service parts for U.S. Air Force F-15 fighter aircraft all over the world.

Id. (internal citations omitted).
"an economic tool for tribes . . . to access the largest purchaser of goods and services in the world—the federal government.\textsuperscript{212}

Fourth, the Obama Administration has made clear its intent to implement the Buy Indian Act\textsuperscript{213} whenever possible.\textsuperscript{214} "The Buy Indian Act . . . directs the Secretary of the Interior to employ Indian labor ‘[s]o far as may be practicable,’ and permits him to purchase ‘the products of Indian industry . . . in open market.’"\textsuperscript{215} However, the Act does not require the Secretary to set-aside particular procurements for particular Indian firms.\textsuperscript{216} Nor does the Act mandate that Indian firms be accorded a preference in the award of contracts, "unless the solicitation so provides."\textsuperscript{217} Generally, the Secretary has "broad discretionary authority to implement the [Act]."\textsuperscript{218} This discretion includes the authority to define the criteria a firm must meet to qualify as an "Indian" enterprise under the Act, and a determination of


\textsuperscript{214} See, e.g., Tribal Consultation on Draft Buy Indian Act Regulations, 75 Fed. Reg. 14, 547-01 (Mar. 26, 2010) ("Indian Affairs is developing the rule to describe uniform administrative procedures that Indian Affairs will use in all of its locations to encourage procurement relationships with eligible Indian economic enterprises in the execution of the Buy Indian Act."); American Recovery and Reinvestment Act of 2009, Pub. L. No. 111-5, 123 Stat. 115 § 1610(b) (stating that the Buy Indian Act will apply to funds appropriated for Indian country under the Act).


\textsuperscript{216} See Support Serv. Int'l, Inc., B-271559, 96-2 CPD ¶ 20, at 2 (Comp. Gen. July 16, 1996) ("Neither the courts nor our Office have construed the Act as requiring that every eligible procurement be set aside for Indian-owned companies, however."); Wakon Redbird & Assoc., B-205995, 82-1 CPD ¶ 111, at 1 (Comp. Gen. Feb. 8, 1982) ("In light of the broad discretion given contracting officials . . . we do not review an agency decision to set aside or not set aside contracts for 8(a) award, unless there is a showing of fraud or bad faith on the part of government officials.").


\textsuperscript{218} Colo. Constr. Corp. v. United States, 57 Fed. Cl. 648, 650 (2003) (quoting Am. Eagle Indus., B-255251, 94-1 CPD ¶ 128, at 2 (Comp. Gen. Feb. 22, 1994)); see also Lakota Contractors Ass'n v. U.S. Dept. of Health & Human Serv., 882 F.2d 320, 322 (8th Cir. 1989) (per curiam) ("Neither 25 U.S.C. § 47 nor the applicable regulations creates an absolute duty to advertise every eligible project for bids restricted to Indian individuals or firms. Rather, the Agency is entitled to invoke the statutory bidding preference when and if it determines the circumstances warrant doing so.").
"the quantum of evidence necessary to establish compliance" with the Act.219

The Buy Indian Act was enacted in 1910, and Congress did not adopt a procurement policy until 1976.220 In 1982 Congress finally affirmed the procurement policy provided in 1976, but only as to federal road construction projects.221 Largely due to steps implemented by the Bush, Sr. Administration, "Congress twice failed to pass amendments to strengthen the act."222 It has taken over 100 years for the Buy Indian Act to be put into operation.

This year, though, the tide will likely change. A rule that thoroughly implements the Buy Indian Act has been promulgated by the BIA and, after consultation with tribes, the rule will likely be signed into law.223 For tribes, this means that the federal government will use Indian labor forces to construct (or perform other contract work) solar projects, and will purchase Indian-generated solar power wherever the rule is implemented. This is a major advantage for tribes, and has great potential to create jobs in

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220. See 25 C.F.R. § 162.5(a) (1978) ("The Bureau of Indian Affairs road program shall be administered in such a way as to provide training and employment of Indians. The Commissioner may contract with tribes and Indian-owned construction companies, or... purchase materials, obtain equipment and employ Indian labor... "). 41 C.F.R. § 14H-3.215-70 (1977) ("[T]he Buy Indian Act permits negotiations of contracts with Indians to the exclusion of non-Indians, and, when used, should be cited in the contract document.").


222. Id.

223. See Tribal Consultation on Draft Buy Indian Act Regulations, 75 Fed. Reg. 14, 547-01 (Mar. 26, 2010) ("Indian Affairs is developing a rule to guide implementation of the Buy Indian Act, 25 U.S.C. § 47, which provides authority to set aside procurement contracts for qualified Indian-owned businesses. The rule will supplement the Federal Acquisition (FAR) and the Department of the Interior Acquisition Regulations (DIAR)."; Rob Capriccioso, Buy Indian Tribal Consultation Proposed, INDIAN COUNTRY TODAY (Apr. 23, 2010), http://www.indiancountrytoday.com/national/northeast/91905244.html (last visited Oct. 6, 2010) ("The OAPM is developing the rule to describe uniform administrative procedures that Indian Affairs will use in all of its locations to encourage procurement relationships with eligible Indian economic enterprises in the execution of the Buy Indian Act.") (on file with the Washington and Lee Law Review).
reservations and other struggling Native communities, and to provide economic opportunities for Indian contractors.224

Fifth, the Energy Policy Act of 2005225 authorized federal agencies to provide a preference for the purchase of any energy product or byproduct from a business entity that is majority-owned by an Indian tribe.226 Solar power generated by a tribal venture qualifies as one of these products.227 The Act was "intended to provide support to tribal governments in the development of energy resources on Indian lands, . . . to provide incentives for partnership with tribes that want to develop their resources[,]"228 and to "authorize individual Indians and tribal governments to enter into energy development leases or business agreements without Federal review . . . ."229 Although the statutory provision has not yet been implemented by agency regulation, it is likely that the Secretary of Energy, in conjunction with the Office of Tribal Energy, will soon take this step.230 At a minimum, the

224. See NATIVE AMERICAN CONTRACTORS ASSOCIATION, NATIONAL CENTER FOR AMERICAN INDIAN ENTERPRISE DEVELOPMENT, NCAI'S "JOB CREATION, RECOVERY, AND REINVESTMENT PLAN" 1 (2009), available at http://www.nativecontractors.org/media/pdf/ NACASTimulusPlan-1-14-09.pdf ("To ensure tribal government inclusion, the NCAI recovery plan recommends $5.4 billion in Indian Country projects . . .").


226. See id. § 503, 119 Stat. at 768 (codified as amended at 25 U.S.C. § 3502(d)(1) (2006)) ("In purchasing electricity or any other energy product or byproduct, a Federal agency . . . may give preference to an . . . enterprise, partnership, consortium, corporation, or other type of business organization the majority of the interest in which is owned and controlled by 1 or more Indian tribes."). Under this act, a tribal development project will also receive Clean Renewable Energy Bonds if it is acting as a political subdivision of the tribe itself, as a sovereign entity. Section 17 chartered corporations, however, are not qualified to receive the bonds. See id. § 1303(j)(3), 119 Stat. at 955 (2005) (defining eligible entities as "any State, territory, possession of the United States, the District of Columbia, Indian tribal government, and any political subdivision thereof").

227. As well as geothermal, wind, and hydro energy. See TESSA HEARING, supra note 173, at 95 (statement of Theresa Rosier, Counselor to the Assistant Secretary for Indian Affairs, Department of the Interior) ("Both renewable and nonrenewable Indian energy is uniquely positioned to play a vital role as the Nation begins to curb its dependence on foreign energy supplies . . . Geothermal, wind, hydro, and solar energy . . . are important to the long-term energy security of this Nation.").

228. Id. at 70 (statement of Sen. Daniel K. Inouye, Vice Chairman, S. Comm. of Indian Affairs).

229. Id. at 71 (statement of Theresa Rosier, Counselor to the Assistant Secretary for Indian Affairs, Department of the Interior).

framework for the Obama Administration to take further action is readily available. For example, the Department of Energy has already indicated that, with regard to fulfilling the mandates of the Act, they are "[v]ery committed to government-to-government relationships."

Finally, "Indian tribes possess the same immunity from suit traditionally enjoyed by all sovereign powers." This stems from the status of Indian tribes as "autonomous political entities, retaining their original rights with regard to self-governance." Tribes enjoy this immunity absent a clear waiver or explicit and unambiguous Congressional action. In the absence of an effective waiver of immunity, state and federal courts cannot exercise jurisdiction over, or provide remedies against, Indian tribes. Congress has abrogated sovereign immunity only in a few limited circumstances. As to contracts, tribes also enjoy

Transition-RecommendationsFINAL-12-23-08.pdf ("We recommend that the Secretary of Energy, in conjunction with the Office of Tribal Energy, take the initiative of coordinating efforts for the issuance of implementing regulations by the Civilian and Department of Defense Federal Acquisition Regulation Councils."). Steps taken to implement these rules are outlined in U.S. DEPARTMENT OF INTERIOR, FISCAL YEAR 2009 CITIZEN CENTRIC REPORT 34–35 (2010) (focusing on royalty management, communication, royalty collection, oversight, and renewable energy).

231. TESSA Hearing, supra note 173, at 78 (statement of Ms. Vicky Bailey, Assistant Secretary for Policy and Int'l Affairs, Dep't of Energy, Wash. D.C.).


235. See Puyallup Tribe, Inc. v. Dep't of Game of State of Wash., 433 U.S. 165, 172 (1977) ("Absent an effective waiver or consent, it is settled that a state court may not exercise jurisdiction over a recognized Indian tribe"); Wichita and Affiliated Tribes of Okla. v. Hodel, 788 F.2d 765, 771 (D.C. Cir. 1986) ("The doctrine of tribal immunity, which recognizes the sovereignty of Indian tribes and seeks to preserve their autonomy, protects tribes from suits in federal and state courts." (citing United States v. U.S. Fid. & Guar. Co., 309 U.S. 506, 512–13 (1940))).

236. See Krystal Energy Co. v. Navajo Nation, 357 F.3d 1055, 1056–61 (9th Cir. 2007) (detailing the doctrine of waiver by Congressional action). Most recently, Congress has abrogated tribal sovereign immunity in the ISEDAA, where it requires the federal government to maintain liability insurance for tribes discharging certain contractual duties.
immunity from suit, "whether those contracts involve governmental or commercial activities and whether they were made on or off a reservation." Tribally-chartered corporations "acting as an arm of the tribe" are imputed the same sovereign immunity granted to a tribe itself. In addition, this immunity extends to persons acting as agents of the tribal corporation. Previously, the general consensus was that in contracts with non-Indians, waiver would never be implied. However, that rule has been disregarded in a few recent cases. Namekagon Development Co. v. Bois Forte Reservation Housing Authority is one example where general "[o]rganizational documents of tribal entities that empower the entity to

See 25 U.S.C. § 450f(c) (2006) (describing liability insurance and waiver of sovereign immunity under the ISEDA). In exchange for this coverage, the tribe waives sovereign immunity for suits arising under the contract. See 25 U.S.C. § 450f(c)(3)(B) (2006) (noting that the insurance carrier must waive any right to a sovereign immunity defense under the contract). However, insurers may not "waive or otherwise limit the tribe's sovereign immunity outside or beyond the coverage or limits of the policy of insurance." Id. Still, the Secretary of the Interior may deny any waiver deemed overbroad. See 19 Fed. Proc. § 46:395 (2010) (noting the Secretary's power to deny any waiver that is outside the scope of "programs, functions, services, or activities that are contractible under the Indian Self-Determination and Education Assistance Act"). Also, the waiver only applies to parties privy to these contracts. See Walton v. Tesuque Pueblo, 443 F.3d 1274, 1280 (10th Cir. 2006) ("In exchange for insurance coverage, the tribe agrees to waive its sovereign immunity with respect to suits arising out of the tribe's performance of its contractual duties.").

238. Cook, F.3d at 725; see also Allen v. Gold Country Casino, 464 F.3d 1044, 1046–47 (9th Cir. 2006) (finding that tribal sovereign immunity extends to business as well as governmental activities when controlled by the tribe in its economic development and self-sufficiency capacity).
239. See Cook, F.3d at 727 ("Tribal sovereign immunity "extends to tribal officials when acting in their official capacity and within the scope of their authority." (quoting Linneen v. Gila River Indian Comty., 276 F.3d 489, 492 (9th Cir. 2002)).
240. See Santa Clara Pueblo v. Martinez, 436 U.S. 49, 58-59 (1978) (noting that it is settled that sovereign immunity cannot be implied, but instead must be unequivocally expressed).
241. See Philip L. Bruner & Patrick J. O'Connor, 2 Bruner & O'Connor on Construction Law § 7:131 (2010) (noting that the Supreme Court has recently ruled that, in certain circumstances, a tribe's agreement to arbitrate constitutes a waiver of tribal immunity). The extent to which the rule has changed in light of these decisions is still up in the air.
242. See Namekagon Dev. Co. v. Bois Forte Reservation Hous. Auth., 517 F.2d 508, 510 (8th Cir. 1975) (holding that the Authority, despite its refusal to waive general immunity from levy and execution, relinquished its immunity as to all monies it received from the Department of Housing and Urban Development for payment to Namekagon by virtue of the parties' contract).
‘sue and be sued’ have been held to constitute a waiver of immunity. 243 Likewise, under C & L Enterprises, Inc. v. Citizen Band Potawatomi Indian Tribe of Oklahoma, 244 arbitration provisions contained in contracts with non-Indians have been deemed to waive sovereign immunity. 245 However, "[n]o agreement or contract with an Indian tribe that encumbers Indian lands for a period of 7 or more years shall be valid unless that agreement or contract bears the approval of the Secretary of the Interior or a designee of the Secretary." 246

5. Sustainable Development

Solar energy developments trigger sustainable economic development. "Virtually every expert who has addressed the energy aspects of sustainable development has concluded that renewable resources should play a major role." 247 Likewise, an American Solar Energy Society report projects that, "we could have 37 million jobs in our national economy in energy efficiency and renewable energy by 2030," as long as the right mix of governmental policies are enacted. 248 Tribally-owned and operated solar projects will create jobs that help reduce dependence on fossil fuels that

245. See id. ("[W]e conclude that under the agreement the Tribe proposed and signed, the Tribe clearly consented to arbitration . . . and that the Tribe thereby waived its sovereign immunity from C & L’s suit.").
246. 25 U.S.C. § 81(b) (2006). Tribes, however, for reasons that are beyond the scope of this Article, are advised only to exert sovereign immunity where it is absolutely necessary, and to waive it in most instances. See, e.g., Stephen Cornell & Joseph P. Kalt, Reloading the Dice: Improving the Chances for Economic Development on American Indian Reservations, in WHAT CAN TRIBES DO? STRATEGIES AND INSTITUTIONS IN AMERICAN INDIAN ECONOMIC DEVELOPMENT 1, 26 (Stephen Cornell & Joseph P. Kalt eds., 1995) [hereinafter Cornell & Kalt, Reloading the Dice] (suggesting tribes can benefit economically by agreeing to waivers of sovereign immunity from third party arbitration outside investors); Michael Taylor, The Practical Issues of Business Development—Some Options to Consider (When to Waive Sovereign Immunity) (Feb. 13, 2008), http://arizonanative.net/av/bste/Session4Immunity.wmv (last visited Oct. 1, 2010) (arguing that the power of sovereignty is actually strengthened when a tribe waives its right to sovereign immunity) (on file with the Washington and Lee Law Review).
247. Ottinger & Williams, supra note 120, at 332.
248. Suagee, supra note 1.
is, the non-Indian industry—and will invent an industry that is "central to a sustainable and affordable low-carbon energy future." The International Indian Treaty Council has also identified the following ways that a solar project will create a sustainable economic development:

- A green jobs economy and a new, forward-thinking energy and climate policy will transform tribal and other rural economies, and provide the basis for economic recovery in the United States.
- For every dollar invested, renewable energy development creates more jobs than fossil fuels like coal, oil, or gas.
- Renewable energy is energy security: Unlike the volatile prices of fossil fuels, the cost of wind and solar resources can be projected into the future, providing a unique opportunity for stabilizing an energy intensive economy.

B. Practical Sovereignty

Energy independence is of real benefit to tribes with solar developments. In the past, outside investment in tribal energy resources have spawned promises of great economic success. But these projects have done nothing to advance tribal sovereignty: "[T]ribes are consistently shortchanged in the deals, earning pennies on every dollar that goes to the mining firms and electric utilities whose operations are fully dependent

250. Id.
252. See, e.g., Taylor, supra note 12 (describing the Navajo Nation’s agreements with outside mining firms for coal and uranium).
upon the reservations. . . . 90 percent of what tribes pay for their energy leaves the reservation."\textsuperscript{253} This lack of an economic base makes it nearly impossible to reinvest in a tribe's infrastructure.\textsuperscript{254} However, it is likely that federal, state, and local government's energy policy shift from fossil fuels to renewable resources will provide the "necessary impetus for broad policy changes involving tribal energy resources."\textsuperscript{255} It is hoped that tribally-owned and operated solar energy developments could "change the energy paradigm from one of exploitation to one of equity" and also change the paradigm "from one that undermines the earth-based cultures of Indigenous peoples to one that nurtures cultural revitalization."\textsuperscript{256} As an additional bonus, if a tribe chooses to invest in a power-generating plant on-reservation, the tribe will be insulated from the increase in costs of energy that has affected the global market participants where long-distance transportation is needed.\textsuperscript{257} As the Native American Renewable Energy Education Project at UC Berkley has concluded,

To the extent that tribes have found transmission access to be a barrier to participation in the electricity supply market, the impacts of open transmission access may be felt more strongly by tribal utilities and power project developers than other, more established industry players. Tribes endowed with energy resources may benefit directly from developments that allow power plants to be sited where electricity may be produced least expensively (i.e., near the fuel source) rather than being required to locate within the service territory of the purchasing utility.\textsuperscript{258}

Tribes already have some of the framework available. In order to rectify some of the misgivings of the ISDEAA, Congress enacted the Tribal

\textsuperscript{253} \textit{Id.}

\textsuperscript{254} See \textit{id.} (noting that a reformed business model that keeps money on the reservation would generate revenue for housing, roads, and water systems; something the current system fails to accomplish).

\textsuperscript{255} \textit{Id.}


\textsuperscript{257} See Booth, \textit{supra} note 251 (advocating the use of tribal utility companies).

Self-Governance Demonstration Project Act in 1988 to allow tribes to "compact" with the federal government to receive block grants similar to those distributed in other areas of federal allocations.259 These grants allow tribes to receive a lump-sum from the federal government for all services that a tribe chooses to manage.260 Tribes can then reallocate funds across the range of services that they choose to administer.261 This means that, although there may still be many impediments to a tribe’s decision to provide its own services in its own way, where a tribe is providing services to its own people, the federal government has made a commitment to step out of the way.262 By building the capacity and aptitude to further provide services to its people through a solar project, tribes are able to take full advantage of this policy.

1. Tribal Implementation

Tribes should keep in mind that, although solar projects have many advantages, having a solar project is not a license to act recklessly with tribal resources. The global energy crisis is likely a result of a focus on gross energy production and a failure to take into account the energy investment that had to be made from other natural resources to produce the energy.263 Tribes should take steps to ensure that they do not fall into the same trap. First, as a practical matter, the less energy that a tribe uses, the

259. See Indian Self-Determination and Education Assistance Act Amendments of 1988, Pub. L. No. 100-472, 102 Stat. 2285 § 202(e) (allowing the government, upon request of the tribe, to make grants to tribal organizations); Tribal Self-Governance Demonstration Project Act, Pub. L. No. 102-184, 105 Stat. 1278 (amending the Indian Self-Determination and Education Assistance Act and allowing for increased tribe participation and additional funding).


261. See id. § 209 (allowing the government to enter into funding agreements with tribes who then are allowed to direct funds for various programs, activities, functions, or services).

262. See id. § 102 (describing the policy of the ISDEAA Amendments as transferring federal oversight of Indian programs to the Indian people and government, with the continued support from the federal government).

263. See Vanderburg, supra note 135, at 102 ("Even ... when integrated resource planning and energy end-use efficiency approaches were taken somewhat seriously, the focus was on gross energy production, which failed to subtract the energy investment that had to be made from primary sources to produce this energy.").
more it will be able to sell. Second, as Andrew Moore, project manager for the T'Sou-ke Nation’s solar project in British Columbia, Canada, has observed, "[o]ur initial project was to produce our own clean energy. We found halfway through the program that it [is] far cheaper to save energy than to produce it." Professor Alazraque-Cherni has also argued that "[p]overty and dependence on traditional sources of fuels go hand in hand." Thus, "[t]he best schemes for improving rural energy may therefore fail if other tribal policies prevent an overall sustainability and equity approach to economic growth." Rather than simply advocating the use of solar energy, tribes should take a holistic approach to promoting sustainable living. The T'Sou-ke, for example, have had great success in promoting sustainable living through their Center for Sustainable Living, the accumulation of a year-long community visioning session that aims to achieve "energy autonomy, self sufficiency in food, and a renaissance in First Nation’s culture and values." The T’Sou-ke’s conservation program thus far includes solar hot water installations and "green" retrofits on all houses.

Tribes need to keep investments circulating within the infrastructure. This means, to the largest extent possible, creating and keeping jobs and money in Indian country. Known as "leakage" in economic lingo,

264. Interview with Andrew Moore, Project Director, T’Sou-ke Nation, in Sooke, B.C. (Nov. 12, 2009); see also HONOR THE EARTH, LAUNCHING A GREEN ECONOMY FOR BROWN PEOPLE: BUILDING A GOOD FUTURE FOR OUR COMMUNITIES AND COMING GENERATIONS—MINNESOTA TRIBAL ENERGY AND FOOD SOVEREIGNTY HANDBOOK 6 (2008) ("The Starwood Hotel group, which includes the Gila River Wild Horse Pass Resort in Arizona, recently invested in energy-smart solutions for 748 properties. The investments saved the corporation $6.1 million in one year or the equivalent of 9,400 hotel room bookings."). The T’Sou-ke Nation’s project is currently "the largest photovoltaic system . . . operating in B.C." LaVoie, supra note 124. Other examples of efficiency measures equaling profits are Southwire (creating nearly all of the company’s profits during a downturn in 1981–1987), Dow Chemical (savings of nearly $110 million per year), Dupont (savings of an estimated $31 million per year), and Blanding Paper Co. (savings of $25 million during another $50 million estimated in the following two years). See Ottinger & Jayne, supra note 123, at 90 n.250 (giving examples of instances when efficiency measures have allowed for profitable reductions in emissions).

265. Alazraque-Cherni, supra note 120, at 107.

266. Id.

267. Moore, supra note 264.

268. See id. (describing the T’Souke conservation program).

Indian country is often unable to keep capital in Indian country because, rather than buying Indian goods and services, Indians (individually and collectively) often buy non-Indian goods and services. For example, "at virtually every Indian casino, hotel or resort in America, the bathroom products are furnished by the likes of Sysco, not Sister Sky [(a tribally owned company)]; the beverages are provided by Coke or Pepsi, not Yakama Juice [(a tribally owned company)]; and the farmed salmon is supplied by non-Indian fishermen. Energy is not an exception. Implementing solar projects on reservations that serve the local communities keeps money in Indian country, available for Indian development in other sectors, preventing leakage. Likewise, known as "brain-drain," tribes have a tough time keeping educated and talented individuals on the reservation because there is nowhere to employ their expertise—or, if there is, the pay is not commensurate with similar positions outside of Indian country. If a tribe chooses to implement a solar project, high-tech trades in Indian country are likely to proliferate; reinvestment in tribal businesses and homes, and the modernization of reservation infrastructure, is likely to occur, and a solar panel

"Indian country will never export these [solar project] jobs anywhere further than our surrounding communities... We have more than a vested interest in keeping green jobs here—Indian nations are not going anywhere" (quoting consortium secretary-treasurer, Chairman Rick Hill of Oneida Tribe of Wisconsin)) (on file with the Washington and Lee Law Review).

270. See, e.g., Graham Haughton, Principles and Practice of Community Economic Development, 32 REGIONAL STUD. 872, 875 (1998) (describing one approach to community economic development that seeks to develop local markets while minimizing economic "leakage").

271. See Galanda, supra note 221 ("Sadly, Indian country's record of buying tribal products is also woeful.").

272. Id.

273. See e.g., Booth, supra note 251 (arguing that tribes should use their own resources for energy production, rather than rely on outside non-Indian sources).

274. See id. (noting that developing alternative energies on tribal lands is likely to prevent "economic leakage").

275. See Davina R. Two-Bears, Navajo Archaeologist Is Not an Oxymoron: A Tribal Archaeologist's Experience, 30 AM. INDIAN Q. 381, 386 (2006) ("This phenomenon is not unheard of across Indian Country and is referred to as the 'brain drain,' and it occurs when educated tribal members come back to their reservation and find no employment opportunities, so they leave again.").

276. See Booth, supra note 251 (arguing that tribal solar energy projects can lead to substantial economic wealth for tribes).

277. See Galanda, supra note 221 ("Without a vibrant tribal private sector . . .
manufacturing company may be lured to tribal lands.\textsuperscript{278} This would likely help to create jobs, and would be a sustainable industry if the demand for solar projects around the country continues to grow as predicted.\textsuperscript{279} Tribes should be sure that these jobs go to Indians, giving educated Indians a reason to come home.\textsuperscript{280}

Tribes should not become dependent on federal funds for daily operations of the project. Funding dependency holds decision-making and accountability hostage to the source of funds, making it difficult for tribal governments to pursue long-term, strategic goals for the project.\textsuperscript{281} This will lead to project failure. Instead, as noted above, tribes should use startup funds from other enterprises, such as gaming, that are already in

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\textsuperscript{278} See, e.g., Ward, supra note 122, at A1 (describing one of the world’s largest solar projects that has been proposed for building in Washington state).


\textsuperscript{281} See Stephen Cornell, Remaking the Tools of Governance: Colonial Legacies, Indigenous Solutions, in REBUILDING NATIVE NATIONS: STRATEGIES FOR GOVERNANCE AND DEVELOPMENT 57, 65 (Miriam Jorgensen ed., 2007) (noting that financial dependence on outsiders "makes it more difficult for tribal governments to pursue tribal priorities, and it is the opposite of self-determination"); Vicki J. Limas, Sovereignty as a Bar to Enforcement of Executive Order No. 11,246 in Federal Contracts With Native American Tribes, 26 N.M. L. REV. 257, 278–79 (1996) (noting that "Most Native American tribes are virtually dependent on federal contracts and grants for their very existence" and arguing that tribally-owned businesses allow tribes to pursue "true sovereignty" by freeing themselves from government support). As stated by one tribal leader, "every federal dollar is a leash around my neck." Stephen Cornell & Miriam Jorgensen, Getting Things Done for the Nation: The Challenge of Tribal Administration, in REBUILDING NATIVE NATIONS: STRATEGIES FOR GOVERNANCE AND DEVELOPMENT 146, 165 (Miriam Jorgensen ed., 2007) (quoting an unnamed tribal leader).
Further, independent funding allows Native nations to take full advantage of their legal status—exempt from federal and state income taxes, exempt from most state and federal economic regulation, and able to levy their own taxes on the projects.\footnote{284} Granted, because of the frustrating status of the tribal-corporate model\footnote{285} and the situation of real property in Indian country,\footnote{286} startup income is extremely hard to come by.\footnote{287} Nonetheless, tribes should make efforts to wean themselves off federal funding as soon as possible, and look to alternative means of startup capital.\footnote{287}

\footnote{282} See supra note 35 and accompanying text (noting that gaming can provide valuable training grounds and startup capital for economic growth).

\footnote{283} See Cornell & Kalt, Reloading the Dice, supra note 246, at 15 ("[T]he sovereign status of tribes offers distinct legal and economic opportunities, from reduced tax and regulatory burdens for industry to unique niches for gaming and the commercial use of wildlife.").


\footnote{285} See infra notes 353–368 and accompanying text (noting the importance of property rights for economic development, the past struggles of the Indian people in asserting their property rights with the U.S. government, the recent attempts by Congress to remedy these problems, and proposing future solutions).

\footnote{286} See Gavin Clarkson, Tribal Bonds: Statutory Shackles and Regulatory Restraints on Tribal Economic Development, 85 N.C. L. REV. 1009, 1009 (2007) (noting the legal limitations on tribes' abilities to issue tax-free bonds); Miller, supra note 94, at 1312 ("Few investors can afford . . . investment of their startup capital."). Indeed, many of the funds that tribes receive from the federal government are treaty obligations See Cornell & Jorgensen, supra note 281, at 166 (noting that many federal funds are treaty obligations).

\footnote{287} See Stephen Cornell, Miriam Jorgensen, Joseph P. Kalt & Katherine Spilde Conteras, Seizing the Future: Why Some Native Nations Do and Others Don't, in REBUILDING NATIVE NATIONS: STRATEGIES FOR GOVERNANCE AND DEVELOPMENT 296, 297 (Miriam Jorgensen ed., 2007) (arguing that tribes should engage in "establishing a realistic plan for escaping federal dependency altogether"). Financial transaction experts have suggested, for example, the tribal adoption of a secured transaction code as an element of a tribe's program to encourage the availability of consumer and commercial credit. See, e.g., Bruce A. King, The Model Tribal Secured Transactions Act and Tribal Economic Development, 61 CONSUMER FIN. L.Q. REP. 804, 804 (2007) (arguing that a secured transactions code would "promote economic development[] [and] encourage the availability of consumer and commercial credit"). The Lummi Tribal Nation and Tulalip Tribes of Washington State have already incorporated secured transaction laws into their tribal codes. See id. at 805 n.3 (noting the Lummi Tribal Nations' adoption of the Washington State
Traditionally, tribes have had difficult relations with states.288 Today, conflict has become commonplace.289 State officials often act under the assumption that they have jurisdiction and responsibility over all activities that occur in Indian country.290 Typically, the state’s contention is generated by land use policies for adjacent property, taxation, and unclear "jurisdictional questions involving environmental and business laws."291 Siting, grid interconnection, and other land use concerns will likely fuel the state-tribal conflict, if steps are not taken to eradicate the situation up-front. Tribes should take steps to enact compacts with states over these issues before they arise. In this way, tribes can assure that the needs of both state and tribal citizens are met, minus the costs of inevitable litigation.292 Cooperative agreements for all of these matters are commonplace. Good illustrations are Washington State’s Centennial Accord293 and Millennium version of the Uniform Commercial Code, and the Tulalip Tribes’ incorporation of a portion of Washington State’s version of the UCC); id. at 808 (discussing the Lummi Tribal Nation’s adoption of the entire Washington version of the Uniform Commercial Code). A copy of the Model Tribal Secured Transactions Act is available at www.nccusl.org.

288. See, e.g., U.S. v. Kagama, 118 U.S. 375, 384 (1886) ("Because of the local ill feeling, the people of the states where they are found are often their deadliest enemies."); Melissa A. Rinehart & Kate A. Berry, Kansas and the Exodus of the Miami Tribe, in THE TRIBES AND THE STATES: GEOGRAPHIES OF INTERGOVERNMENTAL INTERACTION 29, 29 (Brad A. Bays & Erin Hogan Fouberg eds., 2002) ("States and tribes have a long history of conflicts with one another.").

289. See, e.g., STATE OF NATIVE NATIONS, supra note 18, at 69 (describing the current struggle between states and tribes "for the authority over resources or for the right to exercise governmental control when jurisdictional boundaries are unclear").

290. See id. at 70 ("State politicians and officials . . . have tended to act on the belief that they have responsibility for, and attendant regulatory jurisdiction over, all people and activities that occur within their geographic boundaries.").

291. Id.

292. Two studies in the 1990s showed that the benefit that both tribes and states receive by forming cooperative agreements far outweighs the benefits that would be received by successful litigation. See STATES AND TRIBES: BUILDING NEW TRADITIONS 18–19 (James Reed & Judy Zelio eds., 1995) (discussing the role of litigation in relations between tribes and states); TANIS J. SALANT & CAROL LOUISE WHITTAKER, COUNTY-TRIBAL RELATIONS: SIX SOUTHWESTERN COUNTIES AND THE NAVAJO NATION 77 (1997) (summarizing the relations between the Navajo Nation and Arizona, New Mexico, and Utah and noting that "state legislatures appear to respond favorably to Indian assertiveness").

Agreement, Oregon’s Relationship of State Agencies with Indian Tribes, and the numerous taxation agreements enacted throughout the country. Most importantly, acting in a government-to-government capacity allows a tribe to assert effectively its sovereignty in a very active way—the very act of working with and engaging in relationships with other governments "is a critical function of all governments." As a byproduct, these agreements further the economic benefits of promoting the Native nation’s governmental capacity and sending a message to investors that the area is a safe place to invest.

Spillover may also benefit the surrounding state. Studies have shown that Native economic development projects can have a positive effect on state income, employment, and tax revenue, while also having a negative effect on state welfare roles, robberies, and motor vehicle crimes.

goals through an improved relationship between their sovereign governments." (on file with the Washington and Law Review).


296. See SUSAN JOHNSON, JEANNE KAUFMANN, JOHN DOSSETT, & SARAH HICKS, GOVERNMENT TO GOVERNMENT: MODELS OF COOPERATION BETWEEN STATES AND TRIBES 72 (2002) (discussing "[t]he administration of state and tribal taxes on tribal lands" with particular reference to the states of Nevada, Washington, and Oklahoma).

297. See Marge Anderson, Educate, Educate, Educate, in STATE OF NATIVE NATIONS, supra note 18, at 78 (describing how the Mille Lacs Band of Ojibwe asserted its sovereignty at a government-to-government level).


299. See STATE OF NATIVE NATIONS, supra note 18, at 76 (listing the positive effects of such agreements, notably, economic growth and reduced crime).


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Because many Natives live and work in surrounding cities, these agreements will have a positive effect on those members who would otherwise be unreachable as well, expanding the availability of tribes to "address off-reservation issues that are important to the community."

Finally, as noted above, "haphazardly implemented or designed" solar projects will not succeed. The Native American Renewable Energy Education Project at UC Berkeley has suggested four strategies that tribes might embark on in order to respond to mainstream electric reform while exerting sovereignty through a renewable project. First, "[c]reate a tribal utility." Tribal utilities determine who to employ, what rates to charge, and what programs to offer. Tribal control of a utility "also facilitates recirculation of funds within the local economy." Second, "[a]ggregate tribal customers." The tribal government should "represent the collective interest of tribal customers and act as an agent" to run the development. Third, "[r]egulate service providers." Tribes should enact tribal utility codes or other rules for granting rights-of-way or regulating facility siting—especially if the project is done in tandem with outside investors. This signifies to outsiders that the tribe is taking the project seriously, and is willing to comply with the rule of law. Finally, continue to "[i]ncrease...

302. STATE OF NATIVE NATIONS, supra note 18, at 76.
303. Ferrey, supra note 144, at 541.
304. See Howarth, Busch & Starks, supra note 258 (listing the strategies).
305. Id.
308. Id.
309. Id.
310. Id.
311. See id. ("Tribes may also exert greater control over the operations of electric distribution companies by enacting tribal utility codes or other rules for granting rights-of-way or regulating facility siting.").
312. See DAVID HOWARTH, JOHN BUSCH, & TOM STARKS, AMERICAN INDIAN TRIBES AND ELECTRIC INDUSTRY RESTRUCTURING: ISSUES AND OPPORTUNITIES 30 (1997), available...
involvement in power supply." As the market shifts, there will likely be a demand for socially responsible power. "Green Pricing" may help create a market for tribal power even if costs are higher than conventional electricity. Other insights are offered by the Augustine Band of Cahuilla Indians, who have recently constructed a successful solar project of their own. They offer the following: (1) Use proven technologies, so that a long-term economic model can be contemplated; (2) Size the project based on both thoroughly characterized energy use patterns, both present and future, and public policy realities; (3) Create the time and budget for extensive negotiating with states, municipalities, utility companies, and federal agencies; and (4) If working with a non-Indian entity, involve the BIA as soon as possible, in order "to prevent surprises late in the contract negotiating process and ensure that the project schedule is realistic."

2. Legislative Implementation

First, under the IRS Tax Code of 1986, tribes, because they are tax-exempt, are not allowed to take advantage of the production tax credit.

at http://www.osti.gov/bridge/purl.cover.jsp;jsessionid=58717DE96739369679268FC18B268567C?purl=/578552-ssnICA/webviewable/ (Utility codes encourage tribes to be systematic in implementing and enforcing rules for conducting utility-related business on tribal lands, and help non-tribal utilities by providing written rules to guide their activities.").

313. Howarth, Busch & Starrs, supra note 258.
314. See id. (noting "the growing market for socially responsible products").
315. See US DEPARTMENT OF ENERGY, ENERGY, EFFICIENCY, AND RENEWABLE ENERGY, THE GREEN POWER NETWORK: GREEN PRICING, http://apps3.cere.energy.gov/greenpower/markets/pricing.shtml?page=0 (last visited Oct. 17, 2010) ("Green pricing is an optional utility service that allows customers an opportunity to support a greater level of utility company investment in renewable energy technologies. Participating customers pay a premium on their electric bills to cover the incremental cost of the additional renewable energy.").
316. See Howarth, Busch & Starrs, supra note 258 ("Green Pricing' may help establish a market for renewable electricity even as costs remain higher than for electricity from other sources.").
317. See AUGUSTINE BAND OF CAHUILLA INDIANS, supra note 154, at 1 (noting the completion of the project).
318. Id. at 6–7.
320. See Capriccioso, supra note 12 ("[T]ribes are tax-exempt and are therefore not allowed to take advantage of the production tax credit.").
This tax credit provides a 2.1-cent per kilowatt-hour tax benefit for the first ten years of a renewable energy facility's operation. Private companies seeking to partner with tribes face a disincentive in that they receive only 50% of the credit, rather than the 100% that they would receive investing on state land. This situation puts tribes at a tremendous disadvantage when trying to attract renewable energy projects to their lands, and is a clear example of a situation where federal law burdens the freedom of tribes to develop their own path towards building sustainable communities. However, earlier this year, Rep. Raúl M. Grijalva, D-Ariz., introduced the Fair Allocation of Internal Revenue Credit for Renewable Electricity Distribution by Indian Tribes Act, which would "allow tribes to transfer their share of the production tax credit to private entities that finance joint venture renewable energy projects on tribal lands. Tribes would then be able to offer 100 percent of the tax credit to their partners." After that, if tribes chose to tax on-reservation Indian activities or individual tribal members (usually by the kilowatt-hour), they would be free to do so.


322. Capriccioso, supra note 12.


324. See Moore, supra note 264 (stating that, as to the T'Sou-ke’s solar project, “[w]hat is needed are much bigger incentives, tax breaks, etc. to encourage alternative energy production”); cf. STATE OF NATIVE NATIONS, supra note 18, at 117 (discussing the role of private businesses in tribal economic development);

325. See Fair Allocation of Internal Revenue Credit for Renewable Electricity Distribution by Indian Tribes Act, H.R. 2982, 111th Cong. (2009) (allowing tribes to assign production from renewable energy facilities to others with ownership interests in the same facilities to meet requirements of the tax credit).


- allow an Indian tribe, in the case of a facility that uses a renewable energy resource to produce electricity in which such tribe has an ownership interest in the gross sales from the facility, to assign... any portion of the production from the facility that would, but for this Act, be allocated to such tribe for purposes of the renewable electricity production tax credit.


327. See e.g., KILOWATT HOUR TAX, http://tax.ohio.gov/divisions/communications/
This is a step in the right direction. Taxation is an important tool for tribes seeking to raise revenue for a diversified investment portfolio, as well as servicing the general population. According to Bob Gough, a leader with the Intertribal Council on Utility Policy, given President Obama’s commitment to tribal economic development and renewable energy, "prospects are high that the [tax] legislation could be passed this year." Second, current energy subsidies create an unfair market advantage for conventional energy technologies. Between 1948 and 1998, approximately 80% of Department of Energy appropriations were for conventional and nuclear power. For research and development, through FY2003, the federal government has allocated over $101 billion to conventional energy (nuclear, hydroelectric, coal, oil, and gas) and a mere $16.4 billion for renewable energy (solar, wind, biomass, and photovoltaics)—which is more upsetting considering that the conventional energy sectors are "relatively mature." This has lead to the failure of federal agencies to assess accurately costs and benefits of solar projects when compared to traditional energies—a cyclical problem.
because research and development is needed to improve the technologies at commercially competitive initial costs.\textsuperscript{336} Legislation to repeal federal subsidies—a costless and, by definition, revenue-enhancing measure—is the most straightforward way to promote renewable energy development.\textsuperscript{337} China, for example, has removed $14.5 billion in fossil-fuel subsidies between 1992 and 1997.\textsuperscript{338} Today, China’s overall clean energy finance and investment far outweigh that of the rest of the world, almost doubling that of the United States, the previous world-leader.\textsuperscript{339}

Third, by way of the American Recovery and Reinvestment Act of 2009 (ARRA),\textsuperscript{340} the Energy Department has recently made $54.8 million available to tribes for "energy efficiency improvements in Indian Country."\textsuperscript{341} This is important because financing is often required to raise the initial capital for solar projects,\textsuperscript{342} especially in Indian country.\textsuperscript{343} In explaining the allocation, Vice President Joe Biden stated "[l]ocal leaders will have the flexibility in how they put these resources to work—but we will hold them accountable for making the investments quickly and wisely to spur the local economy and cut energy use."\textsuperscript{344} The Augustine Band of Cahuilla Indians in California has already taken advantage of the provision

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\textsuperscript{336} See Ottinger & Williams, supra note 120, at 339–40 (listing factors that limit increased use of renewable energy).
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\textsuperscript{337} See id. at 344 ("Legislation to repeal and remove subsidies for production and use of fossil fuels is the most direct measure to promote renewable energy.").
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\textsuperscript{338} CHRISTOPHER FLAVIN & SETH DUNN, RISING SUN, GATHERING WINDS: POLICIES TO STABILIZE THE CLIMATE AND STRENGTHEN ECONOMIES 28 (1997).
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\textsuperscript{339} THE PEW CHARITABLE TRUSTS, WHO’S WINNING THE CLEAN ENERGY RACE? GROWTH, COMPETITION AND OPPORTUNITY IN THE WORLD’S LARGEST ECONOMIES 7 (2010).
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\textsuperscript{342} See Ottinger & Williams, supra note 120, at 340 ("Renewable energy resources require substantial up-front capital costs . . . ."); see also Ferrey, supra note 146, at 102 ("The capital intensity of power generation projects requires that large capital demands for construction be financed.").
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\textsuperscript{343} See Cornell & Kalt supra note 246, at 8 ("As access to capital improves, so do the chances of successful development.").
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\textsuperscript{344} Stimulus Provides $54.8M in Tribal Energy Grants, supra note 341. Questions still exist, however, as to exactly how these funds will play out in the grand scheme of the U.S. capital markets—since underwriters for bonds or buyers are still necessary. See Jones, supra note 11 (noting uncertainties in the bond market).
and is running a 1.1-megawatt photovoltaic renewable energy system on its reservation that will generate enough power to supply tribal homes and the tribal casino.\footnote{See Debra Gruszeczi, Augustine Band Takes Green Path, \textit{Desert Sun}, Feb. 17, 2009, at B1 (listing the potential uses of the energy generated by the energy system).} Under a recent grant from the U.S. Department of Agriculture, Sacred Power, a Navajo company, will supply solar power systems to Navajo Nation homes without access to electricity.\footnote{Editorial, \textit{Solar Power a Promise for Navajo Nation}, \texttt{INDIANZ.COM} (July 6, 2009), http://64.38.12.138/News/2009/015360.asp (last visited Oct. 6, 2010) (on file with the Washington and Lee Law Review).}

One problem with these startup-funding instruments, however, is that questions are left open as to the money's use and effectiveness. For instance, it is still unclear whether the money can be used to pay back existing debt from already started sustainable energy projects, or whether these projects have to be located within reservation boundaries.\footnote{See Jones, supra note 11 ("There is a host of questions remaining that will be answered only as applications are reviewed and approved. One question is whether stimulus money can be used to refinance existing debt.").} Further, because the tribes are impoverished to begin with, many projects are not "shovel-ready" (ready to go immediately), a requirement to procure an ARRA grant.\footnote{See e.g., American Recovery and Reinvestment Act of 2009, Pub. L. No. 111-5, \S\ 604, 123 Stat. 115, 169 (2009) (noting that the Act's State and Tribal Assistance Grants section states, "priority for funds appropriated herein shall be given to projects on a State priority list that are ready to proceed to construction within 12 months of the date of enactment of this Act . . . ."); see also John Carey, A Rush to Create Green Jobs: But Projects Seeking a Chunk of the Obama Stimulus Cash Must Have Hard Data and Be "Shovel-Ready," \textit{Bus. Wk.}, Jan. 12, 2009, at 22 (discussing the ARRA's "shovel-ready" requirement). This requirement has been a general complaint among minority owned businesses fighting for ARRA funds. See Tim Padgett, Are Minorities Being Fleeched by the Stimulus?, \texttt{TIME.COM} (Nov. 23, 2009), http://www.time.com/time/nation/article/0,8599,1940338,00.html?xid=rss-topstories (last visited Oct. 1, 2010) (discussing the connections between race and the classification of projects as "shovel-ready") (on file with the Washington and Lee Law Review).} Experts must be hired, studies must be completed, and if a contractor is hired, Indian preference requirements alone "can take months to complete."\footnote{Hearing Before the Sub. Comm. on Transportation, Housing, and Urban Development, and Related Agencies, Comm. on Appropriations, 111th Cong. 5 (2010) (statement of Sandra B. Henriquez, Assistant Secretary for Public and Indian Housing).} This is a particular problem for tribes wanting to team with an outside investor, where the NEPA process and other bureaucratic encumbrances are required.\footnote{See Julie Schmit, California Solar Projects Rush to Beat Deadline for Subsidies, \textit{USA Today} (Mar. 30, 2010), http://www.usatoday.com/money/industries/energy/} Because it allows tribes to assert practical
sovereignty, thereby substantially improving the odds that these projects will be successful, once approved for funding, questions should be answered in a fashion that allows the highest degree of leeway. In obtaining the grant, tribes should be offered a supplemental fund to get the "hard data" required before funds are awarded, or receive a waiver from the requirement altogether.

Fourth, one of the major impediments to economic development in Indian country is land status. Based upon the principles laid out in the Marshall Trilogy, the legal status of Indian country is subject to numerous mandated restraints on use and alienation. In Johnson v. M'Intosh, the U.S. Supreme Court formed an inventive version of the "doctrine of discovery," under which any European country that "discovers" Aboriginal inhabited property gains a superior proprietary


352. See Carey, supra note 348, at 22 (noting that the Obama grant approval team "is demanding claims be backed by hard data").

353. See Johnson v. M'Intosh, 21 U.S. 543, 568–69 (1823) (stating that European settlers and the subsequent colonial governments had exclusive right over property through discovery and that Native Americans did not have the right to sell property); Cherokee Nation v. Georgia, 30 U.S. 1, 20 (1831) (finding that Indian tribes are not States or foreign nations); Worcester v. Georgia, 31 U.S. 515, 557 (1832) (stating that Indian territory is completely independent and that all intercourse with the Indian territories is conducted by the federal government, not the States). These decisions, authored by Chief Justice John Marshall and known as the "Marshall trilogy" or the "Marshall model," established the doctrinal basis for federal Indian law.

354. See Oneida Indian Nation v. Cnty. of Oneida, 414 U.S. 661, 667 (1974) (describing the concept of Indian title, where the Native nation has a right of occupancy but the underlying title is assumed by the United States); see generally Felix S. Cohen, Original Indian Title, 32 MINN. L. REV. 28 (1947).

355. See M'Intosh, 21 U.S. at 568–69 (finding that an Indian tribe could not transfer the property in question because a Native tribe cannot sell property because the federal government has exclusive title in Indian land).

claim to that land against other European nations.\textsuperscript{357} Native property rights were assumed to be diminished "because Indian sovereign, commercial, diplomatic, and real-property rights were ... limited automatically and immediately upon first discovery by Euro-Americans."\textsuperscript{358} While the doctrine did not entirely disregard the Indians’ property rights, it did extremely impair them.\textsuperscript{359} As explained by the Court, "the tribes of Indians inhabiting this country were fierce savages, whose occupation was war, and whose subsistence was drawn chiefly from the forest. To leave them in possession of their country, was to leave the country a wilderness."\textsuperscript{360} In other words, the federal government would not recognize property rights after discovery, because tribes, who the Court believed lacked civility, did not recognize property rights among themselves before discovery.\textsuperscript{361} This contention is false. As described by Professor Huffman,

\begin{quote}
[I]t is not entirely true that Native Americans knew nothing of ownership. The language of the common law of property, like all of the English language, was unfamiliar to them. But the concept of the tenancy in common was not foreign to bands and tribes who claimed and defended entitlements to hunting and fishing grounds. Nor was the concept of fee simple title alien to Native American individuals who possessed implements of war and peace, and even lands from which others could be excluded.\textsuperscript{362}
\end{quote}

\textit{Cherokee Nation v. Georgia}\textsuperscript{363} expanded the assumptions of \textit{M’Intosh} by establishing that tribes are not states or foreign countries, but "domestic

\begin{footnotes}
\textsuperscript{357} See \textit{M’Intosh}, 21 U.S. at 573 ("This principle was, that discovery gave title to the government by whose subjects, or by whose authority, it was made, against all other European governments, which title might be consummated by possession.").

\textsuperscript{358} Miller, supra note 81, at 167.

\textsuperscript{359} See Johnson v. \textit{M’Intosh}, 21 U.S. 543, 574 (1823) (stating that Indians have a right of occupancy but not exclusive title over the land with the ability to transfer the property at will).

\textsuperscript{360} Id. at 590.


\textsuperscript{363} See \textit{Cherokee Nation v. Georgia}, 30 U.S. 1, 20 (1831) (finding that the Supreme Court did not have jurisdiction to hear the Indian tribe’s claim because an Indian tribe or
dependent nations" that are in "a state of pupilage... that resembles that of a ward to his guardian." Together, these cases stand for the principles that (1) although Native nations do have the right to occupy their aboriginal lands, tribes cannot "own" the property, in the legal sense (i.e., in fee); and (2) because they are "wards," federal agencies have the obligation to "protect" Indians vis-à-vis the control of their occupation of federal trust land. Trust land cannot be sold, mortgaged, or, in most instances, used without federal approval.

Contrary to Justice Marshall's beliefs, indigenous people generally have "an intricate relationship" with their lands, resources, and environment. "This relationship is the very basis of their economic, social and cultural systems, their ecological knowledge, and their identities as distinct peoples." But, besides being a thorn in the side of Native nations' uphill battle to remain an autonomous sovereign, the legacy of the Marshall model entirely engulfed federal policy for over 150 years, leaving the property to which Native nations do have non-proprietary rights scattered, full of encumbrances, and subject to non-Indian easements.

364. Id. at 17. In Worcester v. Georgia, 31 U.S. 515 (1832), abrogated by Nevada v. Hicks, 533 U.S. 353 (2001), the final decision in the Trilogy, the Court defined the discovery doctrine narrowly as to limit its attrition on tribal sovereignty, stating that, although by treaty many Indians acknowledged themselves to be under the protection of the United States, "[p]rotection does not imply the destruction of the protected." Id. at 544, 552. The decision goes on to explain that tribes have exclusive jurisdiction within their reservations, and recognizes that states cannot interfere with federal-tribal relations. Id. at 561.

365. Supra notes 353-356, 364 and accompanying text.

366. See Indian Land Tenure Foundation, supra note 354, at 12 ("While the tribe or individual retains beneficial use of the land, it can no longer be sold, mortgaged or used in a number of ways without permission from the Secretary of Interior.").

367. Indigenous Peoples' Global Summit on Climate Change, supra note 128.

368. Id. This is also evidenced by the complete and complex tribal code promulgated in the area of tribal property. See Robert D. Cooter & Wolfgang Fikentscher, American Indian Law Codes: Pragmatic Law and Tribal Identity, 56 Am. J. Comp. L. 29, 44-46 (2008) (describing tribal property codes).

369. See Stephen Newcoomb, Christian Discovery and Indian Sovereignty, 29 Cultural Survival Q. 8, 8 (2005) ("Land is one of the most essential and integral components of every Indian nation's continued existence, along with a population, a distinct language base and culture, and a sovereign governmental decision-making body... [E]very Indian nation's existence is tied directly to its land base... ").

370. Particularly damaging was the Allotment (Dawes) Act—"advanced as a means to 'protect' (i.e., 'civilize') American Indians"—which removed over two-thirds of their land base. Bruce Elliott Johansen, The Encyclopedia of Native American Legal Tradition 346 (1998); see also Leonard A. Carlson, Indians, Bureaucrats, and Land:
This is a problem. Property rights are necessary to economic development. They are often used as collateral to raise the initial capital necessary to start economic ventures. But when the status of the property is unknown, unclear, or hindered by the federal government (and therefore cannot be taken over in the event of a default) financial institutions will not lend startup capital. Where this is the case, the property system is, in effect, freezing assets, thereby blocking all development. It has been estimated that, in some instances, property

The Dawes Act and the Decline of Indian Farming 174 (1981) ("No student of the property-rights literature or, indeed, economic theory will be surprised that the complicated and heavily supervised property right that emerged from allotment led to inefficiencies, corruption, and losses for both Indians and society."). Today, 65% of the land on reservations is controlled and owned by non-Indians. Indian Land Tenure Foundation, General Brochure, available at http://www.iltf.org/sites/default/files/ILTF_general_brochure_2009.pdf. Only 9% of wrongfully taken lands have been returned in the past century. Id.

371. See Terry L. Anderson & Dominic P. Parker, Economic Development Lessons from and for North American Indian Economies, 53 Australian J. Agric. & Resource Econ. 105, 105 (2009) ("Evidence shows that strong property rights to reservation and reserve land and natural resources, whether communal or individual, are and always have been important determinants of productivity."). Sowell, supra note 98, at 246 (stating that property rights provide "the ability of people to convert physical assets into financial assets, which in turn enables them to create additional wealth," and that property rights enable "strangers to cooperate in economic ventures").

372. See Sowell, supra note 98, at 244–45 ("Many Americans have created their own businesses—some of which later grew into giant corporations—by borrowing money to get started, using their homes, farms, or other real estate as collateral to get the initial capital required."). Even McDonald’s is subject to this rule. During the company’s struggling years, they were saved from financial ruin by real estate deals on lands on which its restaurants were franchised. See John F. Love, McDonald’s: Behind the Arches 152–55 (1995) (describing McDonald’s novel real estate policy where McDonald’s leased the property from the owner and subleased the property to the franchisee). Without full property rights, the company would have gone bankrupt long before it became an international corporate giant. See id. (detailing the success of the real estate policy during the early years of McDonald’s existence).

373. See Sowell, supra note 98, at 245 (stating that in some Third World countries, where property rights are difficult to establish, banks and other financial institutions avoid lending money on property whose ownership is unknown or unclear). As of 2001, 66% of financial institutions accessible to Indian persons do not offer start-up business loans on or near the reservations; 74% do not offer business microloans; 71% do not offer small business loans; and 80% do not offer larger business loans. Gavin Clarkson, Accredited Indians: Increasing the Flow of Private Equity into Indian Country as a Domestic Emerging Market 11 (Univ. of Mich. Legal Working Paper Series, The John M. Olin Center for Law & Economics Working Paper Series, Paper No. 82, 2008), available at http://law.bepress.com/cgi/viewcontent.cgi?article=1083&context=umichlwp.

374. See Sowell, supra note 98, at 245 ("By making property rights difficult to
rights would be more profitable than a ten-fold increase in the amount of federal aid that tribes receive.\textsuperscript{375} Put short, "property is vital" to economic development.\textsuperscript{376}

In an attempt to rectify the situation, Congress appropriated $5 million in funding to begin the Indian Land Consolidation Pilot Project (ILCPP) in 1998, with the goal of "consolidat[ing] allotted fractional interests into tribal land bases and . . . to reduce the administrative costs of managing fractional interests."\textsuperscript{377} In 2000, the ILCPP was codified in amendments to the Indian Land Consolidation Act.\textsuperscript{378} Still, largely due to the federal government’s appraisal blunders\textsuperscript{379} and a lack of funding,\textsuperscript{380} the ILCPP has been deemed a failure.\textsuperscript{381} In order to make the ILCPP workable, the Indian Land Working Group has called for "the implementation of a steady, long-term, adequately funded program that includes tribal and individual consolidation and acquisition of fractional interests, and the inclusion of tribes in the land acquisition consolidation project and adequate funding for acquisitions."\textsuperscript{382} Despite its shortcomings, the ILCPP is an important step in the right direction. Other solutions to assist tribes to gain control and establish a country’s legal system has, in effect, frozen its own assets and thereby blocked its own economic development.")

\textsuperscript{375} See id. at 246 (arguing that if Third World countries made property rights more accessible, those countries would gain the use of more capital than through a ten-fold increase of foreign aid).


\textsuperscript{379} See DESJARLAIT & RENDON, supra note 377, at 4 (noting that the "Bureau’s land value far exceeds the tribe’s appraisal of land value," and that, in one instance, the tribe’s appraisal was $350 an acre, while the BIA valued the property at $1,500 to $2,000).

\textsuperscript{380} See id. (stating that one consolidation project was expected to cost around $2.7 million, but current estimates are hovering around $15 million).

\textsuperscript{381} See id. at 5 ("While the Department of Interior report claims success of slowing the rate of fractionation, interviews with tribal sources reveal perceptions that the program failed to address certain issues and/or exacerbated other problems."). One interviewee stated that the Project "is like paying a robber to give back what they stole from you." Id. at 6.

\textsuperscript{382} Id. at 9.
ownership rights in their property have been proposed by the Indian Land Tenure Foundation:

- Educate every Indian owner about Indian land management, ownership and transference issues so that knowledge becomes power when decisions about land assets are made.
- Increase economic assets of Indian landowners by gaining control of Indian lands and creating financial models that convert land into leverage for Indian landowners.
- Use Indian land to help Indian people discover and maintain their culture.
- Reform the legal mechanisms related to recapturing the physical, cultural and economic assets for Indian people and strengthening sovereignty of Indian land.  

Finally, in order to work, tribes need to have a substantial say in the matter. It is important to remember that what is essential to tribal economic development is sovereignty—the right to territory, control of resources, and the ability to "participate in domestic and international legal and political institutional decision making processes"—not a pristine environment. Although Native Nations have become victorious in many instances by acting as "stewards of the earth," it is important to separate this depiction (sometimes self-serving) from the idea that, for example, "the world will protect indigenous peoples’ rights to survival so long as


384. See Amanda E. Cronin & David M. Ostergren, Democracy, Participation, and Native American Tribes in Collaborative Watershed Management, 20 SOC’Y & NAT. RESOURCES 527, 529 (2007) (arguing that tribes are an essential component to any successful agency process affecting Indian country). Cronin and Ostergren also argue that in order to be effective, federal agencies must "recognize and understand . . . sovereign nation status." Id. at 539.


indigenous peoples protect the survival of the rainforest." The question is not how to protect a tribe’s natural resources, but how to create sustainable development that improves the welfare of the Native Nation—a right to develop all lands under a Nation’s control as a vital component of self-determination. For example, because the Northern Cheyenne "understand the environment to be a living being, they have opposed coal strip mining because it ‘kills the Water Beings." The neighboring Crow Tribe Aspáálooke Nation, however, has decided to develop extensive coal extraction projects. What is important is that it is the tribe’s decision. Only when a tribe is in control of its own affairs will the desired economic result be reached—and the results can be dramatic. The Citizen Potawatomi Nation of Oklahoma, for example, has reported a


388. There is proof that this is what Native nations were doing long before contact with the West. Marc D. Abrams & Gregory J. Nowacki, Native Americans as Active and Passive Promoters of Mast and Fruit Trees in the Eastern USA, 18 HOLOCENE 1123, 1133–34 (2008) (stating that prior to European settlement, Native Americans managed the vast majority of vegetation in the Eastern United States largely through the use of fire). Rather than maintaining an untouched and pristine landscape, Abrams and Nowacki have shown that Native Americans greatly impacted the importance and distribution of the environment "through both active and passive means, and... ubiquitously impacted these vegetation types at the regional and biome levels... Without their extensive influences prior to European settlement, the Eastern deciduous forest and prairie biomes would have been dramatically different..." Id.

389. See Williams, supra note 385, at 203 ("The emerging framework accepts the idea of a right to develop all territories under a peoples’ control as a critical component of the right to self-determination. Development in this context aims at the improvement of the welfare of the entire population of a state, including its indigenous peoples."). As stated by one tribal leader, "It’s a sovereignty issue. It’s our land, and we’ll do what we want to with it." Bordewich, supra note 387.


391. See Adam Tanner, Two Tribes Differ on Approach to Energy Riches, REUTERS (June 2, 2008), http://www.reuters.com/article/idUSN0143478320080602 (last visited October 5, 2010) (stating that unlike the Northern Cheyenne, the Crow Tribe in southeastern Montana is developing its vast resources of coal on its reservation) (on file with the Washington and Lee Law Review).
300% increase in revenues since they were given the decision-making authority over their federal trust fund management.\textsuperscript{352}

\textbf{C. Capable Institutions}

Capable institutions are the basis for sustained economic growth, as well as the indispensable key to long-term community development.\textsuperscript{393} In order to be effective and accountable, institutions must have the ability and capacity to deliver programs and services to their own people. There are generally two methods employed to fulfill these needs, termed by Professor Haughton as the "localist" and the "mainstream" approaches.\textsuperscript{394} The localist approach often emphasizes a stronger localized economy by linking the services and products of local projects to local needs, whilst also seeking to develop a local market where there is... strong local purchasing and hiring policies.\textsuperscript{395} Mainstream approaches, on the other hand, seek to build "better bridges between excluded communities and the mainstream economy of a region" by "addressing social exclusion processes."\textsuperscript{396} These approaches are likely best used in tandem, as long as they are used correctly—i.e., the mainstream approach to get capital into Indian country, and the localist approach to keep it there.\textsuperscript{397} But the key is less specificity about what is done, and more details about how it is done—"how actively engaged the community is in a particular strategy, what control is retained in decision-making processes, and who retains control of the main local asset base....\textsuperscript{398} Viewed this way, an economic development project should fulfill three requirements: (1) provide alternatives to mainstream market activities; (2) help marginalized communities link better into the

\begin{itemize}
\item \textsuperscript{392} \textit{STATE OF NATIVE NATIONS}, supra note 18, at 22–23.
\item \textsuperscript{393} See Barry Dewar & Caroline Davis, Self-Government A Fundamental Change in the Relationship 1, 12 (Apr. 28, 2000) (unpublished manuscript for presentation at the Canadian Bar Association conference) (on file with the Washington and Lee Law Review); see also Alazraque-Cherni, supra note 120, at 113 (finding that is order to be successful, it is essential that projects "create local institutional networks that support energy services").
\item \textsuperscript{394} Haughton, supra note 270, at 874.
\item \textsuperscript{395} \textit{id.} at 875.
\item \textsuperscript{396} \textit{id.}
\item \textsuperscript{397} See \textit{id.} (stating too much focus on the mainstream approach is likely to "further residualize those involved, leaving them still disenfranchised from the activities (products, services, jobs) of the mainstream market.").
\item \textsuperscript{398} \textit{id.}
\end{itemize}
mainstream market activities; and (3) make "mainstream regeneration initiatives more effective by better integrating them with local communities, bringing the benefits of improved access to local resources, knowledge and legitimacy."

It is likely that a solar project can meet these needs, allowing for the ability and capacity of a tribe to deliver the programs and services that it needs to be effective and accountable. First, solar energy is an alternative to the mainstream market—96% of U.S. energy is derived from nonrenewable sources. Second, renewable energy is the mainstream market. According to some estimates, the growing U.S. population will need at least 66% more electricity over the next forty-two years—a practically impossible number to meet without using renewable sources. Finally, if implemented correctly, solar projects can be a rallying point—allowing tribes to come together collectively to pursue their own objectives in their own way, promoting cultural awareness, and creating a self-image that has been missing in many communities for years.

1. Tribal Implementation

One of the largest obstacles that lies in the way of getting a solar project off the ground is internal: "[O]ften dissent comes from community members who for political reasons do not want the project to proceed." This type of vacillation pushes away potential investors, can undermine the project (sometimes before it even comes to fruition), and can

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399. Id. at 876.
403. Moore, supra note 264; see also Tyler Hamilton, Burn or Turn?, TORONTO STAR (Dec. 5, 2009), http://www.thestar.com/printarticle/734281 (last visited Oct. 6, 2010) (noting that convincing the Navajo to switch to a renewable energy plan has been "a hard sell" because the "Navajo tribal council continues to be obsessed with ts coal prospects") (on file with the Washington and Lee Law Review).
lead to financial and political ruin. There are, however, steps that tribes can take to ameliorate this risk. In order to carry out the day-to-day operations of a solar project, an institution should include, in one form or another, the following: Stability. Regulations and rules should not be changed frequently, and if by chance they do need to be changed, they must be changed only by prescribed procedures. Protection from political interference. Project managers who are familiar with the venture and who have only to benefit from the success of the project should make project decisions. A dispute resolution mechanism. This mechanism should be set up in such a manner to take the politics out of project decisions, and should send an obvious message to citizens and outsiders that their investments and claims will be dealt with fairly. Reliability. The institution should be able to make management decisions reliably and to execute them effectively. Kenneth Grant and Jonathan Taylor have also suggested the following: well-designated checks and balances, clear and predictable rules, staggered terms, civil service professionalism, and independent dispute-resolution mechanisms.

Tribes should implement some type of court system that incorporates their specific culture, values, ideas, and traditions into a legal system "so

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404. See Kenneth Grant & Jonathan Taylor, Managing the Boundary Between Business and Politics: Strategies for Improving the Chances for Success in Tribally Owned Enterprises, in REBUILDING NATIVE NATIONS: STRATEGIES FOR GOVERNANCE AND DEVELOPMENT 190 (Miriam Jorgensen, ed., 2007) (describing that for Indian nations to avoid the dangers of dissent, Indian nations need to engage in an open and honest discussion and foster a "healthy tolerance for dissent and forceful debate.").

405. See Cornell & Kalt, Two Approaches, supra note 22, at 23 ("Governing institutions must be stable. That is, the rules don’t change frequently or easily, and when they do change, they change according to prescribed and reliable procedures.").

406. See Cornell & Kalt, Reloading the Dice, supra note 246, at 29 (stating that for development projects, tribal governments should play a critical role in tribes’ strategic decision-making, but should not make the day-to-day business decisions).

407. See Grant & Taylor, supra note 404, at 182–83 (stating that laws and regulations cannot cover every possible question, creating the need for an independent dispute-resolution mechanism to fairly and quickly arbitrate new questions and problems).

408. See id. at 182 ("But where the rules governing commerce are extant, effective, and respected, they reduce investors' uncertainty about committing to the future of the tribe and thereby improve the chances of profitability.").

409. See id. at 181–83.

410. However, the process of utilizing common law in a court system should not be adopted naively because traditions, circumstances, and cultures change—sometimes "so much so that common law that worked a century ago may not have relevance today." Joseph Thomas Flies-Away, Carrie Garrow, & Miriam Jorgensen, Native Nation Courts: Key
that they can completely address the full range of cases under their jurisdiction, from disagreements between families to multimillion-dollar disputes between tribal entities and non-Native litigants. As noted by Professor Ferrey, "[a] legal framework for structured development... is necessary. There must be a system of law, regulation, and utility interface that facilitates orderly [small power producer] development." Likewise, Professors Cornell and Kalt, and the Harvard Project on American Indian Economic Development, have found conclusively that, after over twenty years of research in Indian country, there exists no case of sustained economic development where an independent tribal court has not been established. Everything constant, there is a strong correlation between the existence of tribal courts and tribal enterprise profitability. Likewise, simply implementing an independent court system "reduces unemployment


411. Id. at 115-16; see also Deloria, Jr., supra note 82, at 28 ("Tribes that can handle their reservation conflicts in traditional Indian fashion generally make more progress and have better programs.""); see generally Douglass C. North, Institutions, Institutional Change and Political Performance 118-30 (1990) (arguing that sound institutions of governance are essential to building strong economies and governments). Many small Native nations without the resources available to run full capable court systems find that establishing such a court system is nearly impossible. See Files-Away, Garrow, & Jorgensen, supra note 410, at 133 ("It can be challenging for Indian nations—particularly small ones—to find the people and the financial resources to run capable court systems."). A possible solution for those tribes may be Intertribal courts: court systems in which tribes pool resources to create fully capable justice systems. Id. (describing Intertribal courts where "separate nations can pool human and financial resources, leading to strong courts and stronger justice systems overall.").

412. Ferrey, supra note 144, at 539. For example, litigation may arise from the blockage of sunlight or physical access to the systems. See Ottinger & Jayne, supra note 123, at 38 (calling for legislation "to protect the sunlight access to [solar energy] systems").

413. See Daniel C.K. Chow & Thomas J. Schoenbaum, International Business Transactions: Problems, Cases, and Materials 9 (2005) ("Conducting business in an environment that lacks a mature legal system can give rise to greater uncertainty and more frequent and serious disagreements on the degree of risk involved than in a developed legal system, such as that of the United States."); State of Native Nations, supra note 18, at 128-29 ("Across all forms of tribal government, the presence of a neutral dispute resolution mechanism contributes substantially to economic development."); Cornell & Kalt, Two Approaches, supra note 22, at 22-24 ("An independent court sends a clear message to potential investors—whether outsiders or tribal citizens—that their investments will not be hostage to politics or corruption.").

414. See Cornell & Kalt, Two Approaches, supra note 22, at 24 ("When Native nations back up sovereignty with stable, fair, effective, and reliable governing institutions, they create an environment that is favorable to sustained economic development.").
by, on average, 5%.\(^{415}\) This may be common sense to most tribes: As they begin to enter the commercial market and to contract with nongovernmental investors, "it quickly becomes apparent that unless they have established mechanisms for settling disputes fairly, investors will go elsewhere."\(^{416}\) Investors require the security offered by independent dispute-resolution systems,\(^{417}\) and are attracted to jurisdictions that fairly enforce stable business codes, uphold contracts, settle disputes, and "protect business from politics."\(^{418}\) By all accounts, "contemporary economic realities make an independent court . . . all but indispensable."\(^{419}\)

Tribes must press onward with the hope that customary and tribal law may merge into a precise and functional representation of how the people of a particular Indian tribe should live, something that Vine Deloria, Jr. and Clifford Lytle envisioned when they remarked that "custom law [alone] . . . could not again become the base for community cohesion and law and order."\(^{420}\) Indeed, tribes are freer than ever to enact ordinances,

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416. STATE OF NATIVE NATIONS, supra note 18, at 128.
418. Economic Development on Indian Reservations: Hearing Before the S. Comm. on Indian Affairs, 104th Cong. 50 (1996) (prepared statement of Joseph P. Kalt, Professor, J.F.K. School of Government, Harvard University); see also Cooter & Fikentscher, supra note 368, at 67 ("The German civil code was enacted in Japan. A version of the French and Spanish civil codes was enacted in Chile. Similarly, tribal codes are mostly borrowed from a state or another tribe. Borrowing text, however, should not be confused with transplanting law, which involves institutions and culture.").
419. STATE OF NATIVE NATIONS, supra note 18, at 130; see also Economic Development: Hearing Before the S. Comm. on Indian Affairs, 105th Cong. 161 (1998) (prepared statement by Donald R. Wharton & Jill E. Shibles, National American Indian Court Judges Association) ("Strong, competent, and impartial tribal courts are integral to the development of business friendly environments in Indian country."); Tribal Justice Systems: Hearing Before the S. Comm. on Indian Affairs, 106th Cong. 69 (2000) (prepared statement of Mary T. Wynne, National American Indian Court Judges Association) (stating that tribal courts are "as much a requirement in the infrastructure foundation supporting [tribal] economic growth as are roads, water, telephones or electricity"); Janet Reno, U.S. Attorney General, Address to the Tribal Court Symposium of Northeastern Tribal Nations (Dec. 2, 1995) (stating that tribal courts are "vital" to Native American sovereignty).
regulations, codes, and statutes that originate with tribal culture.\textsuperscript{421} In doing so, if the time and finances are available, these rules should be promulgated to reflect local solutions to local problems—rather than adopt in wholesale state or federal law.\textsuperscript{422} In this way, the tribe may be better able to thread the line between practical efficacy and cultural legitimacy.\textsuperscript{423} At the least, a commercial code—most likely an adoption of the Uniform Commercial Code\textsuperscript{424} or the Tribal Commercial Code\textsuperscript{425}—is essential to economic development.\textsuperscript{426} Tribes must be able to enforce their own business codes

\textsuperscript{421} See Cooter & Fikentscher, supra note 368, at 66 ("The code movement took hold on Indian reservations in the 1960s and continues today."); Matthew L.M. Fletcher, A Perfect Copy: Indian Culture and Tribal Law, 2 YELLOW MED. REV. 95, 105 (2007) (stating that "tribal legislatures are freer now than ever before to enact statutes, ordinances, and regulations that originate with Indian people and culture").

\textsuperscript{422} See Fletcher, supra note 421, at 106 ("But all too often, tribal lawmakers take the easier route of borrowing Anglo-American legal constructs.").

\textsuperscript{423} See STATE OF NATIVE NATIONS, supra note 18, at 130 (arguing that, to be successful in their economic development, tribes must "equip themselves with the institutional tools that fit today's problems by building institutions that...match their nation's contemporary norms of legitimacy").


\textsuperscript{425} See Tribal Commercial Code Documents, National Conference of Commissioners on Uniform State Laws, available at http://thorpe.ou.edu/UCC.htm (offering a revised version of "existing uniform [commercial] act[s] that would be suitable for tribal adoption"). Tribes could, of course, draft their own commercial codes, and are encouraged to do so. However, this is sometimes difficult, since "[t]ribal customary law often appears to have little to say about disputes in modern tribal communities." Fletcher, supra note 421, at 106. A great example of one of these codes is the Winnebago Business Corporation Code, WINNEBAGO TRIBE OF NEBRASKA CODE tit. 11 (1994), available at http://www.winnebagotribe.com/tribal_court.html. Six years after enacting the Winnebago Business Corporation Code the tribe saw a return on investments shoot up from $180,000 to $25 million. See STATE OF NATIVE NATIONS, supra note 18, at 124–25 (describing the Winnebago Tribe's economic success following the adoption of their business code).

\textsuperscript{426} See Cooter & Fikentscher, supra note 368, at 52 ("In recent years, development economics has stressed that regulatory uncertainty slows business development and contributes to poverty in developing nations. This analysis certainly applies to Indian reservations.") (citing HERNANDO DE SOTO, THE MYSTERY OF CAPITAL: WHY CAPITALISM TRIUMPHS IN THE WEST AND FAILS EVERYWHERE ELSE (2000)); Cornell & Kalt, Reloading the Dice, supra note 246, at 21 ("Business codes that regulate on-reservation permit procedures can prevent every new enterprise proposal from turning into a political fight."); Maylín E. Smith, Model Code Addresses Economic Development in Indian Country, COMMUNITY DIVIDEND (July 1998), http://www.minneapolisfed.org/publications_papers/pub display.cfm?id=3133 (last visited Sept. 30, 2010) (predicting that Indian tribes' adoptions of commercial codes should "reduce—if not eliminate—the perceived barriers to doing business in Indian Country") (on file with the Washington and Lee Law Review).
and other rules that they have implemented in the management of their projects in order to attract investors and protect their own time, talent, skills, and money from outsiders. As Robert D. Cooter and Wolfgang Fikentscher found, "codes increase legal certainty and predictability in dealing with... investors, developers, prospectors, and outsiders. Beyond the fact of lawfulness, codification projects [a tribe's] image. We heard the remark: 'It's better to show them something in print. Proving one's law to the whites is important.' In this same vein, a commercial code enforced by tribal courts attracts federal grants as well. Codes must appear fair to outsiders, as well as being accessible to the general legal community.

With that in mind, it is important that tribal governments design their own energy plans. This allows tribes themselves to set the stage for success—evaluated on the basis of their own criteria. Only when long-term plans are in place do projects become sustainable on reservations. Thus, it is essential that tribes pay ongoing attention to the power and structure of their energy management system. This should include an assessment of both the internal and external markets, as well as the overall cultures and norms of the community. These plans will likely include

427. See Fletcher, supra note 421, at 96 (emphasizing the importance of "tribal customary law" in preserving the "lifeways and law ways of Indian people, a critical part of preserving and advancing Indian cultures").

428. Cooter & Fikentscher, supra note 368, at 65.

429. See id. (stating that "obtaining grants requires tribes to have reliable rules that the granting organization—whether federal, state, or private—can understand").

430. As one native citizen noted, "We can settle traditional issues our way, for example, by talking. But if the issue is pressed on us from outside, we should have a code." Cooter & Fikentscher, supra note 368, at 64.


432. See Cornell & Kalt, Reloading the Dice, supra note 246, at 5 (arguing that tribal economic development success "must be evaluated on the basis of the tribes' own criteria").

433. See id. at 13 ("Cultural changes that do occur often take a long time to accomplish."").

434. See id. (predicting that "the future of economic development in Indian Country will depend to some extent at least on Indian success in [the] battle to sustain and expand existing tribal sovereignty").

435. See id. at 43 (stating that "[t]he problem of getting a good fit among economic system, governing institutions, and cultural standards... will be solved by tribal leaders and
cooperative agreements with off-reservation parties—reducing conflict and increasing government-to-government consultation, while at the same time acknowledging "the sovereign powers of on reservation government." As Dean Suagee has noted, "since the marketplaces in which energy goods and services are bought and sold have been shaped by governmental policies, unless tribal governments plan and implement policies to ensure tribal communities participate in the green energy revolution, I am afraid they will get left out." Tribes should take steps to assure that they are not left out.

Human capital must be made available to tribes instituting a solar development. As tribes institute or take over the management and maturity of these institutions, they should be seeking a knowledgeable workforce of their own. If a tribe chooses a joint venture with an outside

members who understand the linkages among these things and can invent their own solutions"). Often, gathering the data necessary to make arguments to outside investors and federal or local bureaucracies is crucial. See Heather Millar, Combining Community Development and Indigenous Culture to Promote a Conservation Economy, ENV'T: YALE MAG. (Fall 2007), http://environment.yale.edu/pubs/Community-Development-and-Indigenous-Culture-Promote-Conservation-Economy (last visited Sept. 30, 2010) ("Native communities need legitimate data. That's one of the fundamental things we do: help... get information so that the native communities can walk into a permitting hearing and make their case with data that bureaucracies will understand.") (on file with the Washington and Lee Law Review). Stephen Cornell and Joseph P. Kalt have devised a checklist of sorts naming issues that tribes should think about addressing in their plans. See Cornell & Kalt, Sovereignty and Nation-Building, supra note 14, at 206 (listing the "crucial issues for societies to decide as they put together a development agenda").

436. STATE OF NATIVE NATIONS, supra note 18, at 105. Good examples of land-use planning in other areas are the Swinomish "Cooperative Land Use Program," the Gala River Indian Community's Use Planning Department, the Confederated Salish and Kootenai Tribes of The Flathead Reservation's Use-Plan, and the Navajo Nation's "grazing rights arrangements." Id. at 105–06.

437. Suagee, supra note 431.

438. See STATE OF NATIVE NATIONS, supra note 18, at 132–33 ("The need for skilled employees in all aspects of economic activity is critical.").

439. See Alyce S. Adams et al., Governmental Services and Programs: Meeting Citizens' Needs, in REBUILDING NATIVE NATIONS: STRATEGIES FOR GOVERNANCE AND DEVELOPMENT 240–41 (Miriam Jorgensen ed., 2007) (describing tribal initiatives to develop native workforces through technological advancements); Stephen Cornell et al., Seizing the Future: Why Some Native Nations Do and Some Don't, in REBUILDING NATIVE NATIONS: STRATEGIES FOR GOVERNANCE AND DEVELOPMENT 310–11 (Miriam Jorgensen ed., 2007) (noting that individual tribal "[e]citizens' experiences in arenas such as the private sector job market, the military, or college may provide them with transferable knowledge" that can be utilized to benefit the tribe). This is not to say, though, that tribes should be insular in all aspects of governance. See Cornell & Kalt, Where's the Glue?, supra note 69, at 462 (noting that, in some instances, "insularity of the tribe appears to have a negative effect on
investor, the project should be structured to "build tribal capacity over time," with a goal of creating tribal jobs at all levels of implementation and management.\footnote{U.S. DEPARTMENT OF ENERGY, supra note 306. This should be easy, considering that there are currently few people trained in the installation, operation, or maintenance of renewable energy equipment. See, e.g., Ottinger & Williams, supra note 120, at 340 ("Few personnel are trained in renewable energy equipment installation, operation, and maintenance.").} In addition, the joint venture might be planned to augment tribal responsibility, "with the option for tribal buy-out of the business in the future."\footnote{Id.} Education, technical training, and hands-on experience opportunities should be made available to tribal citizens in a way that supports conventional strategies of solar development as well as integrating the tribe's traditional knowledge and the cultural norms of the community.\footnote{See STATE OF NATIVE NATIONS, supra note 18, at 132 (calling the need for tribal development of a skilled labor force "critical"); Ottinger & Williams, supra note 121, at 341 ("Education is vital for informing the public, energy decision makers, non-governmental organizations (NGOs), and the private sector about available renewable energy options, application, and costs and benefits."); Closing the Gap, THE ECOSYMIST, Sept. 2, 1995, at 74 (noting that "a better-educated workforce . . . is likely to spur [economic] growth").} In this way, tribes are also able to "take control of decision-making" and institution-making in their own way, teaching strategic use of capital, location, resources, and other assets that make economic ventures sustainable and successful—in a manner that matches culturally.\footnote{STATE OF NATIVE NATIONS, supra note 18, at 121.} For example, in May 2008, Honor the Earth\footnote{See HONOR THE EARTH, supra note 256, at 31 ("Honor the Earth is a project of the Tides Center, a non-profit 501(c)(3) that provides human resource and financial management and administration.").} hosted a solar panel installation and training session at Little Earth of United Tribes, in Minneapolis, Minnesota,\footnote{See id. at 25 ("As part of [Green For All founder] Van Jones' [sic] visit to Minneapolis, Honor the Earth and a coalition of local groups hosted a solar panel installation and training at Little Earth of United Tribes, the only Native-owned housing project in the nation."); see also De Groot, supra note 120, at 166 (discussing a similar education program in Africa); Debby Tewa, Renewable and Tribal Energy Coordinator, Ariz. Dep't of Commerce, Native Sun: Solar Power and the Southwest Sun (Jun. 27, 2009), available at http://www.nmai.si.edu/motherearth/2009/files/DeborahTewa.pdf (discussing a similar education program in Southwest Arizona).} where "[o]ver 15 Native community members took part in the two day training that included workshops on conservation, wind and solar power."\footnote{HONOR THE EARTH, supra note 256, at 25.} This training session, intended to be the community's first step
toward building a renewable future, has already sparked the creation of the "Indigenous Green Jobs Task Force," an advocacy group promoting "a green economy and green collar jobs in Minnesota’s Native communities." 447 A tribe instituting a solar development should establish similar programs to make their institutions capable.

Finally, as exemplified by the Snoqualmie tribe’s debacle, tribal councils and chairs can often get in the way of a tribe’s economic ventures. 448 Often, when these situations arise it is because the corporate structure has backslid into "a muddle of business and politics," despite a strong beginning. 449 But tribes can take organizational steps to assure that this does not take place. First, on the council and chair levels, tribes should "set clear business objectives" and focus intently on those objectives. 450 Attempting to juggle different purposes and roles without the proper foundation will permit leadership to alter mandates as changes in personnel take place, resulting in a situation where nothing gets finished. 451 This results in a situation where "the rules of the game become" a place where nobody (i.e., investors, grant-approvers, leaders, entrepreneurs, joint venture partners, etc.) would want to invest. 452 Further, business objectives should be set in a manner that addresses long-term community goals such as community cohesiveness and self-identification rather than the immediate need for income and jobs: "A fixed connection to a community priority or societal value can help diminish incentives for unproductive

447. Id.
448. On one extreme, tribal governments have been called "corrupt little tyrannies, with little accountability either to the individual Indian people... or to the culture and traditions of the tribes." Joseph de Raimes, The Indian Civil Rights Act of 1968 and the Pursuit of Responsible Tribal Self-Government, 20 S.D.L. Rev. 59, 70 (1975). For a more down-to-earth assessment, see Cornell & Kalt, Sovereignty and Nation-Building, supra note 14, at 198–99 ("When politics gets involved in business operations, businesses typically either fail or become a drain on tribal resources, preventing those resources from being used to the full advantage of the tribe.").
449. Grant & Taylor, supra note 404, at 186.
450. Id. at 187.
451. See David D. Haddock & Robert J. Miller, Can a Sovereign Protect Investors from Itself? Tribal Institutions to Spur Reservation Investment, 8 J. SMALL & EMERGING BUS. L. 173, 201–02 (2004) (finding that new elections can cause such extreme changes in tribal economic policies that a tribal council may work against investors it had once worked with, and vice versa). When this occurs, both Indian and non-Indian investment in Indian Country is chilled.
political intervention." Tribes should also insist on transparency in all levels of council matters, in order to ensure the trust that is necessary to prevent "erosion of the corporate governance system." On the corporate and management level, membership should include a mixture of insiders and outsiders where positive dissent is encouraged. In this way, objective guidance is more likely. Putting elected leaders on project boards is likely to weaken enterprise performance and should be done with caution, if at all.

2. Legislative Implementation

In order to protect their investment, before a grant is given to a tribe, the granting body should be sure that the tribe has some type of a dispute resolution process—and, if not, to provide funds so that they can acquire one. Tribes with dispute resolution mechanisms that are insulated from the political process have superior job-creating investment records and considerably lower rates of unemployment. As Stephen Cornell and Joseph P. Kalt have noted, "[a]n independent court sends a clear message to potential investors—whether outsiders or tribal citizens—that their investments will not be hostage to politics or corruption." This is not to

454. Id. at 188–89.
455. See Taiaiake Alfred, Peace, Power, Righteousness: An Indigenous Manifesto 65 (1999) (noting that Native nations today "are so polarized between Indian and white that no one dares criticize an Indian leader publicly, so we let them get away with murder").
456. See Grant & Taylor, supra note 404, at 190 (noting that for tribal management to "function properly" there must be "open and honest discussion" and "positive dissent").
457. See Cornell & Kalt, Reloading the Dice, supra note 246, at 31–32 (finding that, in a study conducted by the authors, "the odds that an independently managed tribal enterprise was profitable were almost seven to one," while "the odds that a tribal enterprise that was not insulated from tribal politics was profitable were only 1.4 to one").
458. This will likely be a trust or treaty responsibility. See Cornell & Jorgensen, supra note 281, at 166 (noting that many of the federal funds already received by "Indigenous communities" are "treaty obligations").
459. See Cornell & Kalt, Reloading the Dice, supra note 246, at 28–35 (finding that "independent judiciaries promote economic well-being under all types of tribal executive and legislative systems"); Cornell & Kalt, Where's the Glue?, supra note 69, at 460–67 (analyzing statistical data indicating that tribal institutions have a positive effect on economic development).
say, though, that the court needs to look like a U.S. court system—court systems of some sort have existed in Indigenous North America since before European contact; they just need to be rekindled.\footnote{See Begay et al., supra note 108, at 43 (arguing that organized "systems of law have always been used by Indigenous North Americans to sustain successful communities").} Rules may or may not be written down, as they often exist as tribal common law "set out in the teachings of elders, parents, and medicine people, or are simply embedded in the accumulated experience and wisdom that serve largely unspoken as guides to life."\footnote{Id. at 42.}

Native nations that are highly dependent on federal funding to maintain their economic development projects often fail.\footnote{See Cornell & Kalt, Sovereignty and Nation-Building, supra note 14, at 209 ("In our work, we cannot find a single case of successful economic development . . . where federal decision makers have exercised de facto control over the key development decisions.").} Aside from the mere fact that the money comes from the federal government, giving the federal government a disproportionate degree of influence in tribal affairs, many federal dollars are program-specific, "developed in federal offices or Congress, often with little attention to the diversity of Native nations, their circumstances, and their capacities."\footnote{Id. at 11.} The result is that the federal government is in the driver’s seat, setting the direction that the program takes—forcing tribes into a reactive and dependent, instead of a proactive and self-determined, approach.\footnote{See id. at 13 ("This, in turn, reflects a local attitude toward tribal government that sees it simply as a pipeline for resources instead of as a force of rebuilding the nation.").} This then produces a local attitude toward tribal institutions that perceives the institutions as pipelines for money, rather than nation-building forces.\footnote{Haughton, supra note 270, at 875.} However, as noted by Professor Haughton, "[c]ommunities generally do want to be more empowered, but alternatively they do not necessarily want these processes of empowerment to be the cover for reduced state engagement and funding in community level activity."\footnote{See Cornell & Kalt, Two Approaches, supra note 22, at 27–28 (explaining the role of non-indigenous governments in the nation-building approach); see also Cornell & Kalt, Reloading the Dice, supra note 246, at 36 ("A block grant approach to federal assistance is a}
solution requires the development of capable institutions to manage the project. When tribes have ownership over their own institutions, project managers are held accountable for their actions, and money flows in the right direction. Also, the federal government should not be a decision-maker in the implementation of a solar project, but rather, it should be an advisor and resource. The government should develop a program of evaluation that, if necessary, reflects the needs and concerns of the tribe's citizens, not those of the funding agency and its constituencies. Finally, it is important for funding agencies to recognize "that self-governing nations will make mistakes, and that sovereignty involves the freedom to make mistakes, to be accountable for them, and to learn from them."

D. Cultural Match

much needed step in Indian affairs, replacing federal determination of what types of projects tribes should pursue with tribal determination, backed by federal investment.

469. See, e.g., ROBERT L. BEE, CROSSCURRENTS ALONG THE COLORADO: THE IMPACT OF GOVERNMENT POLICY ON THE QUECHUA INDIANS 123–24 (1981) (explaining that reservation-based programs and economic development plans that were funded in whole or part by federal grants led to the creation of a special Indian office in the Economic Development Administration and a special Indian desk at the Office of Economic Opportunity to coordinate the various programs); GEORGE P. CASTILE, FEDERAL INDIAN POLICY AND THE SUSTAINED ENCLAVE: AN ANTHROPOLOGICAL PERSPECTIVE, 33 HUM. ORG. 219, 221 (referring to the Rough Rock Community School on the Navajo reservation as an example of a capable institution developed by the Office of Economic Opportunity).

470. See STATE OF NATIVE NATIONS, supra note 18, at 127 (describing the link between the idea of ownership and the idea of accountability).

471. See CORNELL & KALT, TWO APPROACHES, supra note 22, at 27 (explaining that, under the nation-building approach, non-native governments should move from a decision-making role to an advisory resource role in tribal affairs); see also ATKINSON, supra note 361, at 431 (stating that the federal government should move "from a paternalistic babysitter to a cooperative consultant").

472. See CORNELL & KALT, TWO APPROACHES, supra note 22, at 28 (explaining that the nation-building approach involves "[t]he development of program evaluation criteria that reflect the ability of Native nation governments to meet the needs and concerns of their citizens, not only the concerns of funding agencies and their constituencies").

473. Id.
The tribes of North America are, and have always been, diverse. Although some tribes may share similar traits, there exists no such thing as a monolithic "pan-Indian culture." That being said, it is common for most American Indians to revere the sun and value its energy-creating capacities—whether it is for the production of crops, the signaling of weather change, how long to stay at sea for purposes of subsistence fishing, the movement of game, or simply as a form of entertainment. This veneration often runs deep. For the Pueblo Indians, for example, the values derived from the sun call for balance, capacity, permanence, and the obligation to maintain the communal nature of

474. See Begay et al., supra note 108, at 46 (explaining the diversity of indigenous people).

475. See id. at 46–47 ("One could not have spoken, with any accuracy, of some monolithic 'Indian culture' at the time of European contact, and if some kind of pan-Indian culture has emerged in North America today, it coexists with multiple tribal ones.").

476. See Ray A. Williamson, Living the Sky: The Cosmos of the American Indian 25 (1984) (noting that although Native American tribes are extremely different, most Native Americans are deeply sensitive to the rhythms of the earth and the sky); see also F.V. Hayden, Contributions to the Ethnography and Philology of the Indian Tribes of the Missouri Valley 238, 245, 280 (2008) (explaining the role of the sun as the "Master of Life," and discussing the importance of the sun dance to the Missouri Valley tribes); Warren R. DeBoer, Colors for a North American Past, 37 World Archaeology 66, 67–78 (2005) (noting that, instead of the Western binary system, which begins north, an overwhelming number of American Indians had a system facing the east, indicating their orientation toward the sun); Moore, supra note 264 ("It is important for First Nations to show the way to a life without fossil fuels, breaking our dependency and addictions on oil and returning to a life using the elements once again, the sun, wind, rivers and sea.").


478. See Travis Hudson et al., Solstice Observers and Observatories in Native California, 1 J. Cal. & Great Basin Anthropology 38, 40 (1979) (explaining that Native Californians recognized that certain seasonal changes on earth were related to the location of the sun).

479. See Williamson, supra note 476, at 25 (discussing how Native Americans’ close relationship to the land enabled them to take sustenance from the sea); Robert J. Miller, Exercising Cultural Self-Determination: The Makah Indian Tribe Goes Whaling, 25 Am. Indian L. Rev. 165, 174–75 (2001) (noting that the Makah of the Olympic Peninsula in Washington State "believed in a Supreme Being and directed prayers to the sun as the representative of the Great Spirit" (citing James G. Swan, The Indians of Cape Flattery, in 16 Smithsonian Contributions to Knowledge 61, 76 (1870))).

480. See Williamson, supra note 476, at 303 (explaining that Native Americans paid close attention to the sky in order to learn about the movement of game).

traditional subsistence. As one professor of international affairs has noted, "[i]t is ironic that [those who seek sustainable development] must rediscover principles that Native Americans . . . knew almost intuitively. Until now, these principles were readily discounted as "a system of myths conceived by superstitious and irrational minds." Today, it has become apparent that Western energy economics is packed with myths of its own—the results of which have led to the current energy crisis. As a result, tribes are at the forefront of the renewable energy trend, and "[t]he people of the Choctaw are proud to proclaim that their strategy of community-owned businesses today flows from a long history of such economic

1. Tribal Implementation

Tribes should analyze their current culture and past traditions in order to decide what type of business model to implement, as these projects can be entrepreneurial, collective, or both. For example, "[t]he people of the Choctaw are proud to proclaim that their strategy of community-owned businesses today flows from a long history of such economic

482. See Ragsdale, Jr., supra note 124, at 75 (explaining the values that support the agrarian stable-slates of the Pueblo Indians).

483. Williamson, supra note 476, at 303; see also Adamson, supra note 390 ("Modern science is just now beginning to catch up with such ancient wisdom."). But see Thematic Sessions, supra note 128 ("Too often attempts to compare and contrast traditional ecological knowledge (TEK) with scientifically acquired data imply that the Indigenous people's way of knowing is inadequate in contrast with science.").


485. See id. at 96 ("In the 20th century, and particularly in its second half, our energy-related behavior can perhaps be understood as something so narrow and so unbelievably ineffective and irrational that without our being enveloped in myths, it would be a comedy of errors."). See generally Lauren W. McCall, Cultural Adaptations After Progressivism, 43 CROSS-CULTURAL RES. 62 (discussing the anthropological assumption of a moral position of superiority in learning about indigenous people, and that the indigenous people's beliefs were likely more economical as to their environment).

486. Debra Grusczcki, Special Report: Alternative Energy Resources: Embracing Winds of Change, THE DESERT SUN, May 17, 2009, at A1; see also Thematic Sessions, supra note 128 ("Using solar power to generate electricity would seem to be a perfect cultural-economic match for indigenous people seeking to participate in climate mitigation. Indigenous peoples have long shared a special affinity for the power of the sun, as evidenced in various religious and cultural practices.").

487. See generally CHAMPAGNE, supra note 100.
Likewise, the Salish and Kootenai Tribes have cared deeply about the environment and have comported themselves in a way to manage such assets throughout their histories. However, some tribes, such as the Crow Nation of Montana, have histories rooted in entrepreneurial self-sufficiency and individual economic decision-making and planning. The models that flow from these organizations can range from large, native Nation-owned corporations formed under tribal L.L.C. codes that supply energy to the grid to individual solar entrepreneurs. Whatever type of project the tribe chooses to implement, the economic model that it selects should match culturally.

Solar "[p]roject initiators and managers often fail to understand the energy and related social needs of rural communities, fail to adapt projects to meet these needs, and fail to involve the communities in project design." Even the most well-meaning, clean-handed, and honest tribal governments can be ignorant of community needs, and these errors can impede solar developments for decades. Tribal communities cannot afford projects that absorb a considerable amount of their small expenditure. Where projects fail, tribes are often left destitute.

Understanding this threat, tribes should require "local-needs assessment and

489. See id. (stating that the Salish and Kootenai Tribes cared about the land and its resources throughout their histories).
490. See Bill Yellowtail, Meriwether and Billy and the Indian Business, in LEWIS AND CLARK THROUGH INDIAN EYES, 69, 81–83 (Alvin M. Josephy, Jr. ed., 2006) (explaining that an Indian must be self-sufficient and autonomous before he or she can take care of the tribe).
493. Ottinger & Williams, supra note 120, at 339.
494. See id. at 343 ("Often, well-meaning international and national agencies, equipment suppliers, and project funders and promoters are ignorant of community needs, customs, and cultures. They ignore local input to the peril of their projects, and promotion of renewable resources throughout the country or region is affected.").
495. See id. ("Communities cannot afford unsuccessful projects that may fail to meet development objectives and leave participants destitute.").
496. See id. (stating that unsuccessful projects may leave participants destitute).
community participation in project design.\footnote{497}{Id.} To be properly implemented, all tribal officials, project funders, trainers, educators, maintenance personnel, technical operation staff, suppliers, engineers, architects, and project designers should be trained to meet community needs effectively and to contribute to local assessment efforts.\footnote{498}{See id. (explaining the training needed to promote economic and social development).}

2. Legislative Implementation

The U.S. Commission on Civil Rights has recently observed that inadequate program spending has "render[ed] laws and agreements with Native peoples little more than empty promises" and that "only through sustained, systemic commitment and action will [the] federal responsibility be realized."\footnote{499}{U.S. COMM’N ON CIVIL RIGHTS, A QUIET CRISIS: FED. FUNDING AND UNMET NEEDS IN INDIAN COUNTRY 122 (2003).} Obviously, startup funds for these projects are extremely helpful. However, limiting a tribe’s implementation of these projects to bureaucratic restrictions dooms the project by forcing a tribe to do it the federal government’s way, or not at all.\footnote{500}{See Cornell & Kalt, Reloading the Dice, supra note 245, at 15 (explaining the cost of forcing tribes to follow government guidelines); see also id. at 13 (explaining that forcing tribes to spend federal funds according to federal guidelines inadvertently encourages the view that tribal governments are simply a pipeline for resources instead of a force for rebuilding the nation).} Of course tribes will take the funds, but unless the project matches culturally, it will fail.\footnote{501}{See id. at 10 (noting that "in general, where there is a ratchet between the approach a tribe pursues and the social organization and culture of the tribe, the odds of successful development increase").} In response to this dilemma, the Obama Administration "backed off [the previous government’s] position that tribes could use tax-exempt bonds only for projects related to essential governmental functions."\footnote{502}{Jones, supra note 11.} Under the Obama Administration, tribes are permitted to use bonds to subsidize projects similar to those of other municipalities.\footnote{503}{See id. (describing how bonds can be used under the federal government’s new position). However, this does not give tribes free reign: "[T]he projects must be on tribal lands and cannot be related to gambling." Id.} The federal government should continue to encourage tribes to invest federal funds in a broad range of
projects to ensure that tribes implement a solar project because it matches culturally, not because the tribe wants to avoid federal grant forfeiture.

Federal, state, and local governments need to view indigenous cultures as an asset, rather than an obstacle, to economic development. All too often the viewpoint is: "[Y]ou are poor because your culture gets in the way." However, as we have seen, this is seldom the case. Usually, a federal agency controls economic projects (or, at least, these projects are only approved if based upon a Western model of management). Typically, "[n]either the asset management nor the economic design principles employed... are based on Indian cultures." As a result, if a project works, a large majority of revenues, benefits, employment, and profits derived from tribal resources go to external investors. If the project does not work, Native nations are left footing the bill. Native nations rarely have a say. In order to change the tide, the federal government must allow Native nations to develop their own projects, in their own way, using their own customs and traditions. If a federal agency does need to be involved, there are steps that it can take to ensure its policy reflects native culture and traditions. First, a federal agency must go beyond the Administrative Procedures Act’s mandated public comment system, and instead, find substantive methods for tribal involvement in decision-making. This may include techniques that

504. See Cornell & Kalt, Two Approaches, supra note 22, at 12 (emphasizing that indigenous cultures were often seen as obstacles to development despite evidence that organization fit with native culture is a strong determinant of development success).  
505. Id.  
506. See id. at 14–15 (explaining that the federal government usually holds most of the decision-making power in the standard approach).  
507. Adamson, supra note 390.  
508. See id. ("In short, a majority of benefits, revenues, profits, employment, etc. derived from tribal assets go to outside interests—not to the benefit of Indian Nations.").  
509. See id. (explaining that Native’s spiritual base and views rarely get mentioned in requests for funding).  
510. See Cornell & Kalt, Reloading the Dice, supra note 246, at 10 ("[I]n general, where there is a match between the approach a tribe pursues and the social organization and culture of the tribe, the odds of successful development increase.").  
511. See Bennett & McBeth, supra note 152, at 377–78 (describing the policy alternatives used to preserve the rural community).  
513. See id. § 553(a)(1) (explaining that the APA rulemaking provision does not apply to "matter[s] relating to... public property, loans, grants, benefits, or contracts"); Bennett &
combine interviews, focus groups, surveys, and government-to-government consultation. Second, resource use and allocation decisions should be staged and timed in a tribal community-centered manner. Finally, an agency should design its management contracting process so that Native nations, using cultural practices, would have better chances at winning these contracts. Without provisions in place that leave room for cultural match, the federal government will essentially be throwing its money away.

IV. Conclusion

The story of solar power is inextricably tied to Native Americans. Until recently, the energy needed to sustain life came almost entirely from the sun. In the early nineteenth century, however, the ability to harness the power of fossil fuels enabled some countries, including Great Britain, to develop "novel structures of collective life out of which ... mass politics developed." Fossil fuels "freed ... an area of land equivalent to the

McBeth, supra note 152, at 377 (explaining that the best way to consider the needs of each tribal community in public agency policy decisions is "by directly including rural residents in the design and evaluation of the alternatives that will affect their lives"). To include the rural community in the process, "agency personnel would have to go beyond their belief that giving citizens an opportunity to comment on agency developed alternatives represents public involvement and instead find substantive methods for rural public involvement in decision making." Id.

514. See Mark K. McBeth, Environmental and Economic Development Attitudes: An Empirical Study, 9 Econ. Dev. Q. 39, 47 (1993) (stating that economic development agents can use focus groups, surveys, and town meetings to secure public input); see also Alzraque-Cherni, supra note 120, at 113 ("[I]nformation gathered from user groups could be of great relevance to both improve the chances of reliable and durable energy services in the future and to enhance policy decisions."); Vanderburg, supra note 135, at 102 ("[T]he best source of alternative energy can come from overcoming the huge blind spots in the present intellectual and professional division of labor, which makes it impossible for specialists to know the undesired consequences of their design and decision making that fall beyond their domains of competence.").

515. See Bennett & McBeth, supra note 152, at 377 ("Second, resource allocation and use decisions should be timed and staged in a community-sensitive manner.").

516. See id. at 378 (explaining that agencies could design and size their ecosystem management restoration contracts so that local residents could win more of these contracts).

517. See Timothy Mitchell, Carbon Democracy, 38 Econ. & Soc'y 399, 401 (2009) ("Until 200 years ago, the energy needed to sustain human existence came almost entirely from renewable sources, which obtain their force from the sun.").

518. Id. at 401–02.
total surface area of [Great Britain]." At the same time, this created an "energetic metabolism" based on large-scale manufacturing and consolidation of specialized labor in cities. Mass production required access to large and fertile new properties for growing crops to supply raw materials and the food needed to sustain the new industrial complex. Colonies in the present-day United States provided this land. But clashes with Indian tribes would not allow colonizers to advance "beyond the several eastern mountain ranges and larger tribal confederacies inland from the Atlantic seaboard." Thus enters the Marshall model and M'Intosh’s legitimization of the denial of the Indian’s natural rights. Today, the Marshall model still defines the content and scope of the Native American’s inferior political and legal rights.

Only time can tell whether President Obama’s shift in energy priorities will provide an impetus for long-needed changes involving American Indian law and policy. However, tribal attorneys, council-members, and federal entities charged with the promotion of tribal interests can be sure

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519. Id.
520. See id. (citing SIDNEY POLLARD, PEACEFUL CONQUEST: THE INDUSTRIALIZATION OF EUROPE, 1760–1970 (1981)).
521. See id. ("Production on a mass scale required access to large new territories for growing crops, both to supply the food on which the growth of cities and manufacturing depended and to produce industrial raw materials, especially cotton.").
522. See KENNETH POMERANZ, THE GREAT DIVERGENCE: EUROPE, CHINA, AND THE MAKING OF THE MODERN WORLD ECONOMY 68 (Princeton Univ. Press, 2000) (arguing that the switch to fossil fuels was one of the driving forces behind the establishment of the colonies); see also Jack D. Forbes, Why Does Our History Begin on the East Coast?, NEWS FROM INDIAN COUNTRY (Apr. 14, 2010), http://indiancountrynews.net/index2.php?option=com_content&do_pdf=1&id=8809 (last visited Oct. 6, 2010) ("United States history...[is] virtually always focused on the westward movement of the British or English peoples across the Atlantic and then the subsequent growth and expansion of the area of British control."). Forbes also argues that the Americas were already settled by many others, and the British "discovery" was a cover-up to justify the domination of Native American societies. Id.
523. WILLIAMS, supra note 356, at 233.
524. See id. at 353 (explaining Johnson v. M'Intosh and the United States legal theory of colonization).
525. Although Worcester was abrogated, these cases that make up the Marshall model are still used to support this proposition. As of April 1, 2010, the cases have been cited to 1,682 times in reported cases. The most recent case was decided on February 23, 2010. See In re Hanna, 227 P.3d 596, 600 (Mont. 2010) (finding that tribal courts do not have exclusive jurisdiction over an Indian child under the Indian Child Welfare Act). Section 1919(a) of the Memorandum of Agreement permits agreements that deprive tribal courts of jurisdiction to adjudicate the rights of accused abusers. Id.
that the opportunity for change is now presented to everyone. This opportunity should be taken advantage of. In the immediate future, state and federal economies are facing a tough fiscal course. Now is the time for federal and state policies to integrate tribal economies and resources into the equation, expanding and developing opportunities to create revenue and jobs in a sustainable manner.\textsuperscript{526} Tribes and governmental agencies should keep a keen eye toward tribes like the Augustine Band of Cahuilla Indians who are implementing these projects, in order to gain a sense of what works, what needs improvement, and how to get these projects off the ground.\textsuperscript{527} Michael Lombardi, a gaming commissioner for Augustine Casino in Coachella, stated that "the solar park is exceeding [his] expectations."\textsuperscript{528} Solar energy will have a ripple effect across Indian country.\textsuperscript{529} It will likely be profitable for tribes and government agencies to ride that wave. Most importantly, it is essential that tribes who resolve to pursue a solar project become active in the federal bureaucratic process and

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529. See id. ("Tribes across the land are doing their due diligence right now to collect information on ways to develop sustainable energy sources.").
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vigorously assert their sovereignty by insisting that these projects come to fruition. As stated by Melissa George, an indigenous rights advocate and environmental and natural resource manager, "[t]he days of being passive and waiting for things to change have gone. People of my generation recognize that the only way we can have some level of opportunity . . . is to play the game the white fellas in the government play." Today, that game is renewable energy, and tribes should make moves to utilize solar power projects to ensure victory.