

Economic Development, Native Nations, and Solar Projects

By RYAN DAVID DREVESKRACHT¹

ABSTRACT. This article examines the issues surrounding sustainable economic development in American Indian country via the implementation of solar energy projects. The second section addresses Native American economic development, generally, focusing on practical sovereignty, capable institutions, and cultural match. The third section discusses solar energy projects: 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. The fourth section will briefly discuss the question: Given the advantages of solar energy that the article advocates, why is the uptake in Indian country not already prolific?

Introduction

The Obama Administration has repeatedly expressed a commitment to sustainable energy, proposing that it serve “as a pillar to economic recovery” (Saugee 2009). It seems that Obama’s commitment to sustainable energy is more than political musing. Recently, the administration has pioneered legislation that allocates billions toward accelerating and expanding deployment, development, and use of geothermal and solar energy throughout the United States. Many believe that with Obama the “green energy revolution” has finally arrived.

The Obama Administration has also made notorious a commitment to Native American economic development. Here, too, the administration has followed through with many of its promises. Among other legislation, for example, in the American Recovery and Reinvestment Act of 2009 (ARRA) the administration fought to earmark over \$40 billion dollars to Indian tribes. For tribes that seize the opportunity, the “green energy revolution” means actual, on-the-ground development.

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Indian lands have some of the most significant energy potentials in the country. In particular, solar electricity prospects on tribal lands are projected to be 4.5 times the annual total electricity needs of the United States. Paradoxically, tribal lands are also the most economically impoverished and underdeveloped regions in the country. To add an unfortunate and ironic 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 fraction of their income.

This article will examine the issues surrounding economic development in American Indian country, and how solar projects may pose a solution to many of the issues currently blocking development in these lands. The second section will address Native American economic development, generally, focusing on practical sovereignty, capable institutions, and cultural match. The third section will discuss solar energy projects: the benefits of solar energy as 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. Finally, having argued for and laid out a framework for economic development via solar projects, the fourth section will offer concluding remarks.

Economic Development

Practical Sovereignty

In their 1968 study of the relationship between American Indians and the U.S. federal government, Cohen and Mause (1968: 1818, 1820) found that “the normal expectation on the reservation is that the Indians may not do anything unless it is specifically permitted by the government.” In many cases, Cohen and Mause’s statement is still true. Non-indigenous governments are often pressured to stifle Native nations’ assertions of practical sovereignty because, as professors Cornell and Kalt (2007: 14) explain, “[t]urning over real power to Native nations is threatening: What if they screw up? What will tax-payers say?” However, it is quite clear that this approach has only

led, in the long run, to larger burdens on taxpayers, and more poverty in Indian country. In fact, in over 20 years of research in Indian country, no incident of continued economic development has been found where a tribe is not making its own decisions about resource use, internal organization, or development strategies (Cornell and Kalt 2007: 22).

Practical sovereignty is necessary to economic development. First, it puts development decisions in Native hands. This means that tribes themselves set the agenda—rather than outsiders (who reflect foreign cultures, interests, and perceptions)—reflecting *tribal* culture, perceptions, and interests. These strategies are best suited to address local needs, values, and conditions. Sovereignty places resources directly in the hands of Native nations, which translates to an increased sense of possession over resources. Second, self-governance means accountability. Sovereignty weds decisions to consequences, resulting in improved resolutions because tribes themselves have the principal stake in the outcome. 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.

Capable Institutions

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, research so far submits the conclusion that capable institutions are a *necessary* condition to successful economic development. When tribes are unable to effectively govern themselves, it is largely due to the residual effects of past U.S. policies. Today, courts still fail to acknowledge the U.S. policy shift to tribal self-determination, and in many instances still compel a federal approval process before changes in tribal institutions can be implemented. Adding insult to injury, because many tribes have retained U.S. imposed institutions to implement development programs, they often fail, and true self-determination cannot be realized.

Despite these impediments, many tribes are finding ways around judicial roadblocks by instituting their own systems of governance, giving real teeth to the federal government's stated self-determination policy. When Native nations set their own priorities and manage systems, programs, and dollars in their own way, culpability rests with the tribe itself and decisionmakers are no longer held accountable to the federal government, but to their own citizens. 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 give definition via those accountable institutions. Whereas imposed systems 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 in once it arrives.

Cultural Match

Many tribal leaders are cautious about becoming caught up in the global economy, and for good reason. The history of Native America is beleaguered 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” (Miller 2008: 1297, 1300).

However, many successful tribal development planners have noted that “developing reservation economies is *vital* to sustaining and developing Native American cultural identities” (Smith 2000: 80; also see Duffy and Stubben 2007; Pratte 2009). By deciding how to partake in the global financial system, what types of businesses to permit on their lands, and what economic ventures a community will support, tribal governments are in fact asserting sovereignty—a necessary step to economic development—rather than losing it.

What is important is that tribal developers emphasize that while tribes do not seek to defend a static culture, nor do they desire to become the “non-Indian, Hollywood version of iconic culture” (Harvard Project on American Indian Development 2008: 13). Indeed, perhaps the most 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 “Indianness” as they become more conventional. This contention is false. By providing the resources to achieve cultural integrity and self-determination, escalating economic development on tribal lands supports tribal culture rather than damaging it (Cornell and Kalt 2000).

The question then arises: How are tribes to develop economically without throwing away their tradition and culture? The first step is to realize that economic development and native culture are not diametrically opposed. Rather than fighting against development, tribes must redefine development for themselves in a way that matches their own tradition and culture, embracing all outcomes and approaches:²

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. (Begay 2007: 36–37)

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” (Begay 2007: 36).

Tribes and the federal government must realize that there is no single conduit to successful economic development. Rather than being an impediment 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 has abundant access to. The vital concern is that any enterprise 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.

Solar Energy

This section will unfold in two parts. First, it will discuss the benefits that tribes may garner by implementing solar projects—whether they

are on or off of tribal land, made in cooperation with outside investors or with federal/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.

General Benefits

Rural Areas Without Electricity

Because small-scale solar energy projects are highly cost effective, particularly in providing power for lighting, irrigation, refrigeration, and communication, poor and remote areas on tribal lands that are not served by electricity would benefit directly from solar projects. Although 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.³

Environmental Protection

Conventional electricity generation, the largest source of air pollution in the United States, causes substantial damage to human health and, 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.⁴ Solar energy is around 10 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.

Security of Investment

Generally, the power market is a safe investment. In 1935, the federal government created the Federal Power Commission to set

the electricity rates such that power-generating utilities would receive an assured profit. Also as part of this regulation, each utility company was given exclusive control of a service area, but had a requirement to guarantee against blackouts, serve everyone, and assure a reasonable rate relative to the cost of distribution and production. By the mid-1960s, due to technological and financial plateaus realized by then-current monopolies, alternative providers began seeking entry into the market, offering cheaper and better energy. In reaction, the Carter Administration introduced the National Energy Act, which encouraged increased energy efficiency, stimulated conservation, modernized utility ratemaking, 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 generate the power themselves. Today, independent energy producers are able to generate as much energy as they can, use what is needed for themselves, and sell the rest to utilities⁵—and traditional utilities are legally obligated to buy their power.⁶ Further, because it allows them to maintain control of the market, utilities welcome independent producers with open arms.

Particularly, the solar market is an exceptionally safe investment. First, it has been projected that “more solar energy strikes the earth in one hour than all of the energy used by the planet in an entire year” (Elisara-Laulu 2009). Yet, electricity produced by solar technologies provides less than 0.1 percent of world electricity (Elisara-Laulu 2009). Solar energy is abundant, free, clean, widely available, and simple to extract—as opposed to traditional energies, the cost of which will inevitably rise as electricity demand grows and the availability of fossil fuel declines. Investors have virtually limitless potential to tap the energy of the sun and convert it to money. Second, as 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 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-dependent, there is growing citizen

support for sustainable development and environmental preservation through alternative energies (Bennett and McBeth 1998: 371, 377). Even labeling a product with a “sustainable technology” sticker has a substantial impact on consumer choice (Sammer and Wüstenhagen 2006: 185). Fourth, solar projects are relatively easy. Photovoltaic is known to be extremely viable in much of Indian country, where a growing number of large energy companies are establishing systems each year (Augustine Band 2005: 21). Fifth, carbon offsets are an extremely profitable market, and are likely to continue to be so (National Wildlife Federation 2010: 16). 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 emission, and electricity use. Increasing international attentiveness to “green energy” has led analysts to predict that the offset market will become particularly lucrative (Rousse 2008: 388). 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” (National Wildlife Federation 2010: 16). Finally, there is a high likelihood that the federal government will soon establish a national “renewable portfolio standard” (RPS) mandating that electric utilities acquire a definite percentage of their electricity “from renewable resources or purchase renewable energy credits” via independent energy producers (Fershee 2008). Although RPS has not made it into law yet, RPS legislation has passed the Senate three times since 2002, the House more recently in 2007, and many states have independently implemented their own RPS laws.

Economic Advantages

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.⁷ Tribes can create a section 17 corporation⁸ or tribally chartered entities (that is, a tribal utility) to generate revenue while taking advantage of their situation as a sovereign entity.⁹

First, because tribes are independent sovereign nations, neither states nor the Federal Energy Regulatory Commission (FERC) can

block solar projects.¹⁰ Currently, states are failing to site the number of power plants needed to meet the country's projected energy demands. 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."¹¹ Second, 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. "Not in my backyard" and "tragedy of the commons" collective action problems loom large here. Third, again 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)—which can take years and cost millions. Finally, 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.

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. The only time that the federal government may interfere with the project is if it affects a federal trust resource (for example, minerals and water), or if a lease or sale to a non-tribal entity for a period of more than seven years is involved. 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. 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. This may trigger NEPA because the Bureau of Indian

Affairs Realty Office needs to take action regarding use of land held in trust, although each situation is different. But even where NEPA and other federal laws do apply, the Bureau has pledged only to take into account the most essential factors and has made clear a commitment to streamlining the NEPA analysis by employing intergovernmental (that is 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.¹² Where the energy goes is of no consequence either, since no “federal action” is required in the sale.

Second, when tribes take over services under the Indian Self Determination and Education Assistance Act, the federal government has a mandate to 1) provide technical assistance to facilitate tribes’ assumption of programs, 2) provide practical aid to assure that the tribe is in compliance with applicable federal laws, and 3) is obligated to fund contract support costs related to self-determination contracts.¹³ The tribe, however, gets to keep 100 percent of its appropriations.

Third, tribes have advantages in government contracting. 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 unserved or only partially serviced in the past” (Deloria 1969: 142). Today, it is undisputed that contracting has become an important sovereignty-expanding tool for Native nations. Particularly influential in this aspect is a system known as the 8(a) program. Under the 8(a) program, tribes are able to obtain sole source federal contracts, as affiliates or under the larger tribal corporate umbrella, if they can show a social and economic disadvantage—which is almost always met. Another advantage is that there is no capped 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). Tribes can use the 8(a) program to secure contracts for the development of solar projects on federal lands. Many of the tribes that have taken advantage of the 8(a) program have seen remarkable results.¹⁴

Fourth, the Obama Administration has made clear an intent to implement the Buy Indian Act whenever possible. The Buy Indian Act directs the Secretary of the Interior to employ Indian labor “[s]o far as

may be practicable,” and permits the secretary to procure “the products of Indian industry . . . in open market.”¹⁵ This year, 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 made into law.¹⁶ For tribes, this means that the federal government will use Indian labor forces to construct (or perform other contract work on) 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 reservation and other struggling Native communities, and to supply economic opportunities for Indian contractors.

Fifth, the Energy Policy Act of 2005 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.¹⁷ Solar power generated by a tribal project qualifies as one of these products. 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, and to authorize individual Indians and tribal governments to enter into energy development leases or business agreements without federal review. 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.¹⁸ At a minimum, the framework for the administration to take further action is readily available. For example, the Department of Energy has already indicated that, in regard to fulfilling the mandates of the Act, it is “very committed to government-to-government relationships.”¹⁹

Sixth, the U.S. Commission on Civil Rights has 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” (U.S. Commission on Civil Rights 2003: 122). Obviously, start-up funds for these projects are extremely helpful. However, limiting a tribe’s realization of these projects to bureaucratic restrictions dooms the project—and federal funds invested—by forcing a tribe to do it the federal government’s way, or

no way at all. In response to this dilemma, the Obama Administration has changed the previous administration's position that tribes can use tax-exempt bonds only for development projects related to essential governmental functions. Under the new administration, tribes are permitted to use bonds to subsidize projects similar to those of other municipalities. This is a huge advantage.

Finally, Indian tribes possess the same immunity from suit traditionally enjoyed by all sovereign powers.²⁰ 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 and unequivocal 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.²¹ As to contracts, tribes also enjoy immunity from suit, whether those contracts involve governmental or commercial activities and whether they were made on or off the reservation.²² 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.²³

Sustainable Development

Solar energy developments trigger sustainable economic development. A recent study by the American Solar Energy Society projects that 37 million jobs will come out of the solar energy sector by 2030 (Saugee 2009). Tribally owned and operated solar projects will create jobs that help reduce dependence on fossil fuels—thus the non-Indian industry—and will invent an industry that is central to an affordable and sustainable low-carbon energy future. The International Indian Treaty Council (2008) 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.

Practical Sovereignty

Of real benefit to tribes with solar developments is energy independence. In the past, outside investment in tribal energy resources has spawned promises of great economic success. But these projects have done nothing to advance tribal sovereignty: “tribes 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 upon the reservations. . . . 90 percent of what tribes pay for their energy leaves the reservation” (Taylor 2009). This lack of an economic base makes it nearly impossible to reinvest in a tribe’s infrastructure. However, it is likely that federal, state, and local governments’ energy policy shift from fossil fuels to renewable resources will provide the long-needed impetus for expansive policy changes concerning tribal energy resources. Tribally owned/operated solar energy developments “change the energy paradigm in Native communities from one of exploitation to one of equity . . . and from one that undermines the earth-based cultures of Indigenous peoples to one that nurtures cultural revitalization”²⁴ (Honor the Earth 2009: 21). As an additional bonus, if a tribe chooses to invest in a power-generating plant on-reservation, the tribe will be insulated from the swell in costs of energy that has affected the global market participants where long-distance transportation is needed.

Tribes already have some of the framework available. In 1988, Congress enacted the Tribal Self-Governance Demonstration Project Act to allow tribes to compact with the federal government to receive block grants similar to those distributed in other areas of federal allocations. These grants allow tribes to receive a lump sum from the federal government for all services that a tribe chooses to manage. Tribes can then reallocate funds across the range of services that they choose to administer. 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. 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.

Capable Institutions

Capable institutions are the basis for sustained economic growth, as well as the indispensable key to long-term community development. 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” approaches²⁵ (Haughton 1998). 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” (Haughton 1998: 875). Mainstream approaches, on the other hand, seek to build better bridges between excluded communities and the mainstream economies of a region by addressing social exclusion processes. These approaches are likely best used in tandem, as long as they are used correctly—that is, the mainstream approach to get capital into Indian country, and the localist approach to keep it there. But the key is less the specifics of what is done, and more the detail of 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” (Haughton 1998: 875). Viewed this way, an economic development project should fulfill three requirements: first, provide alternatives to mainstream market activities; second, help marginalized communities link better into the mainstream market activities; and third, 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” (Haughton 1998: 876).

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—right now, 96 percent 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 percent more electricity over the next 42 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 (Kaufman and Franz 2000; Singh 2009).

Cultural Match

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 a common characteristic among American Indians to revere the sun and to 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 means to entertainment. This veneration often runs deep. As William (1984: 303; also see Adamson 2009) has noted, “[i]t is ironic that [those who seek sustainable development] must rediscover principles that Native Americans . . . knew almost intuitively.”²⁶ Until now, these principles were readily discounted as “a system of myths conceived by superstitious and irrational minds” (Karimi and Vanderburg 2008: 95–96). Today, it has become apparent that Western energy economics was packed with myths of its own—the results of which have led to the current energy crisis. As a result, tribes are finding themselves at the forefront of the renewable energy trend, and, as ancestral stewards of the earth, are embracing alternative energy resources on their land, very closely following advances in technology on solar-renewable resources.

Non-Native projects have failed in the past because local needs were not properly met. Understanding this threat, tribes are in a

unique situation to address community participation and local-needs assessment in project design. Because of most tribes' more localist approach, Native officials, project funders, trainers, educators, maintenance personnel, technical operation staff, suppliers, engineers, architects, and project designers are more apt to meet community needs effectively and to contribute to local assessment efforts.

Conclusion

The story of solar power is inexorably tied to Native Americans. Until fairly recently, the energy needed to sustain life came almost entirely from the sun. In the early 19th century, however, the ability to harness the power of fossil fuels allowed for the reorganization of energy systems and, with that, the novel structures of collective life we now know as mass politics. In Great Britain, the substitution of timber by coal created a capacity of energy that would have required forests many times the size of existing woodlands if energy were still dependent on solar radiation. Fossil fuels “ ‘freed’ an area of land equivalent to the total surface area of the country” (Mitchell 2009: 399). 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 now United States provided this land. But clashes with Indian tribes would not allow colonizers to advance beyond the eastern mountain ranges or into the larger tribal confederacies inland from the Atlantic seaboard. The early United States got around this problem by creating a legal fiction whereby the Indians' natural rights were denied, and the United States was legally allowed to deny entire nations their lands.²⁷ Today, this model still defines the content and scope of the Native American's inferior political and legal rights²⁸ (Pollard 1981; Williams 1992).

Only time can tell whether Obama's shift in energy priorities will provide an impetus for long-needed changes involving American Indian law and policy. What tribal attorneys, council members, and federal entities charged with the promotion of tribal interests can be sure of, however, is the opportunity that is now presented to all. 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 manor. Tribes and governmental agencies should keep a keen eye toward tribes like the Augustine Band of Cahuilla Indians, the Oglala Sioux, the Navajo and Hopi Nations, the Jemez Pueblo Tribe of New Mexico, and the Rincon Indian Band of Mission Indians, who are implementing these projects. In this way, developers and policymakers may gain a sense of what works, what needs improvement, and how what model of development may work for them. Most importantly, it is essential that tribes who resolve to pursue a solar project become active in the federal bureaucratic process and *vigorously* assert their sovereignty by insisting that these projects come to fruition.

Notes

1. Ryan D. Dreveskracht is an Associate Attorney at Galanda Broadman PLLC, of Seattle, an American-Indian-majority-owned law firm. His practice focuses on representing businesses and tribal governments in public affairs, energy, gaming, taxation, and general economic development. He can be reached at 206.909.3842 or ryan@galandabroadman.com. He is greatly indebted to Whitney Henderson for her much-needed editorial, research, and citation assistance.

2. This type of economic development has been termed “measured separatism.”

3. In Costa Rica, for example, power generated by private solar developments accounts for about 12.3 percent of the total power put into the grid (Nandwani 2006).

4. Indigenous Peoples’ Global Summit on Climate Change, Thematic Sessions, <http://www.un.org/ga/president/63/letters/globalsummitoncc.pdf>, last visited Mar. 23, 2010; Harvard (2008: 179, 188).

5. Under the National Energy Act’s Public Utility Regulatory Policies Act of 1978, 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. FERC then passed these responsibilities on to the states, who pass them to local utility commissions. U.S. public utility commissions require that utilities meet consumer demands at all times.

6. 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 traditional utilities to charge themselves the same rate they charge competitors for transmission. In other words, independent producers can use the traditional utility's lines to get into the grid, at no disadvantage.

7. *Allen v. Gold Country Casino*, 464 F.3d 1044, 1046 (9th Cir. 2006). Usually, tribes should refrain from using state laws to form their business enterprise. The IRS treats income from those businesses as taxable. *See Rev. Rul. 67-284*, 1967-2 CB 55.

8. 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 (Facer 1994).

9. 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*, Slip Copy, 2010 WL 1406524 (W. D. Wash.) (holding that a casino enterprise, with 49 percent outside ownership, must pay state property taxes). The ability to collect those taxes, however, is in question. *See Oneida Indian Nation v. Madison County*, 05-6408-cv (L); 06-5168-cv (CON); 06-5515-cv (CON) (2nd Cir. Apr. 27, 2010) (holding that while a tribe might owe taxes in some instances, the courts have no ability to enforce collection remedies).

10. However, if a tribe chooses to connect into the grid, in order to sell excess energy, FERC's interconnection rules will likely apply (Haynes and Whitaker 2007).

11. Shane Ramsey, *Power Plant Siting in a Deregulated Electric Industry: Discerning the Constitutionality of Siting Statutes Under the Dormant Commerce Clause*, 21 J. LAND USE & ENVTL. L. 91, 91-92 (2005).

12. Specifically, when a federal agency has no discretion in how to implement a provision, NEPA does not apply. *See Nevada v. United States*, 221 F. Supp.2d 1241, 1248 (D. Nev. 2002) (holding 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 PV-panel system on the roofs of buildings throughout the community. Also, in accordance with 25 CFR 224.52, 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 the Interior. NEPA does not apply to these either. *See*

About Tribal Energy Resource Agreements (TERAs), <http://teeic.anl.gov/abouttera/index.cfm> (last visited Apr. 12, 2010). At this point, though, there are no TERAs in place with the Department of the Interior. E-mail from Sandra Begay-Campbell, Director of the Native Communities Energy Program, Sandia National Laboratories, U.S. Department of Energy (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).

13. See *Cherokee Nation v. Leavitt*, 543 U.S. 631 (2005).

14. 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 (*Eagle Woman* 2008: 383, 413).

15. *Andrus v. Glover Const. Co.*, 446 U.S. 608, 609 (1980).

16. See 75 Fed. Reg. 14,547.

17. Pub. L. No. 109–58, Tit V, § 503, 25 U.S.C. § 3501. 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.

18. Steps taken to implement these rules are outlined in U.S. Department of Interior, Fiscal Year 2009 Citizen Centric Report (2010: 34–35).

19. *Tribal Energy Self-Sufficiency Act and the Native American Energy Development and Self-Determination Act, Hearing Before the Comm. on Indian Affairs*, 108th Cong. 144 (2003) (statement of Craig Thomas, U.S. Senator from Wyoming), located <http://www.gpo.gov/fdsys/pkg/CHRG-108shrg86005/pdf/CHRG-108shrg86005.pdf>.

20. *Walton v. Tesuque Pueblo*, 443 F.3d 1274 (10th Cir. 2006).

21. See *Krystal Energy Co. v. Navajo Nation*, 357 F.3d 1055, 1056–61 (9th Cir. 2007) (detailing the doctrine of waiver by Congressional action).

22. *Kiowa Tribe of Oklahoma v. Manufacturing Technologies, Inc.*, 523 U.S. 751 (1998).

23. *Cook v. AVI Casino Enterprises, Inc.*, 548 F. 3d 718, 725–27 (9th Cir. 2008).

24. Honor the Earth, 2008 Annual Report 31 (2009).

25. Graham Haughton, *Principles and Practice of Community Economic Development*, 32 REGIONAL STUD. 872, 874 (1998).

26. Ray A. Williamson, *Living the Sky: The Cosmos of the American Indian* 303 (1984); Rebecca Adamson, *Indigenous Economics: Ancient Knowledge Inspires Economic Reform of Capital Markets*, THE CANADIAN, Jul. 1, 2009; but see Elisara-Laula (2009), Indigenous Peoples Global Summit on Climate Change, *supra* note 12 (“Too often attempts to compare and contrast traditional ecological knowledge . . . with scientifically acquired data imply that the Indigenous people’s way of knowing is inadequate in contrast with science.”).

27. Robert A. Williams, *The American Indian in Western Legal Thought: The Discourses of Conquest* 308 (1992).

28. The cases that make up the earliest, and most racist, Indian law cases are still very good law. As of April 1, 2010 the foundational Marshall Trilogy cases (i.e. *Johnson v. M’Intosh*, 21 U.S. 543 (1823), *Cherokee Nation v. Georgia*, 30 U.S. 1 (1831), and *Worcester v. Georgia*, 31 U.S. 5 15 (1832)) have been cited to in reported cases 1,682 times.

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