The Green Road Ahead

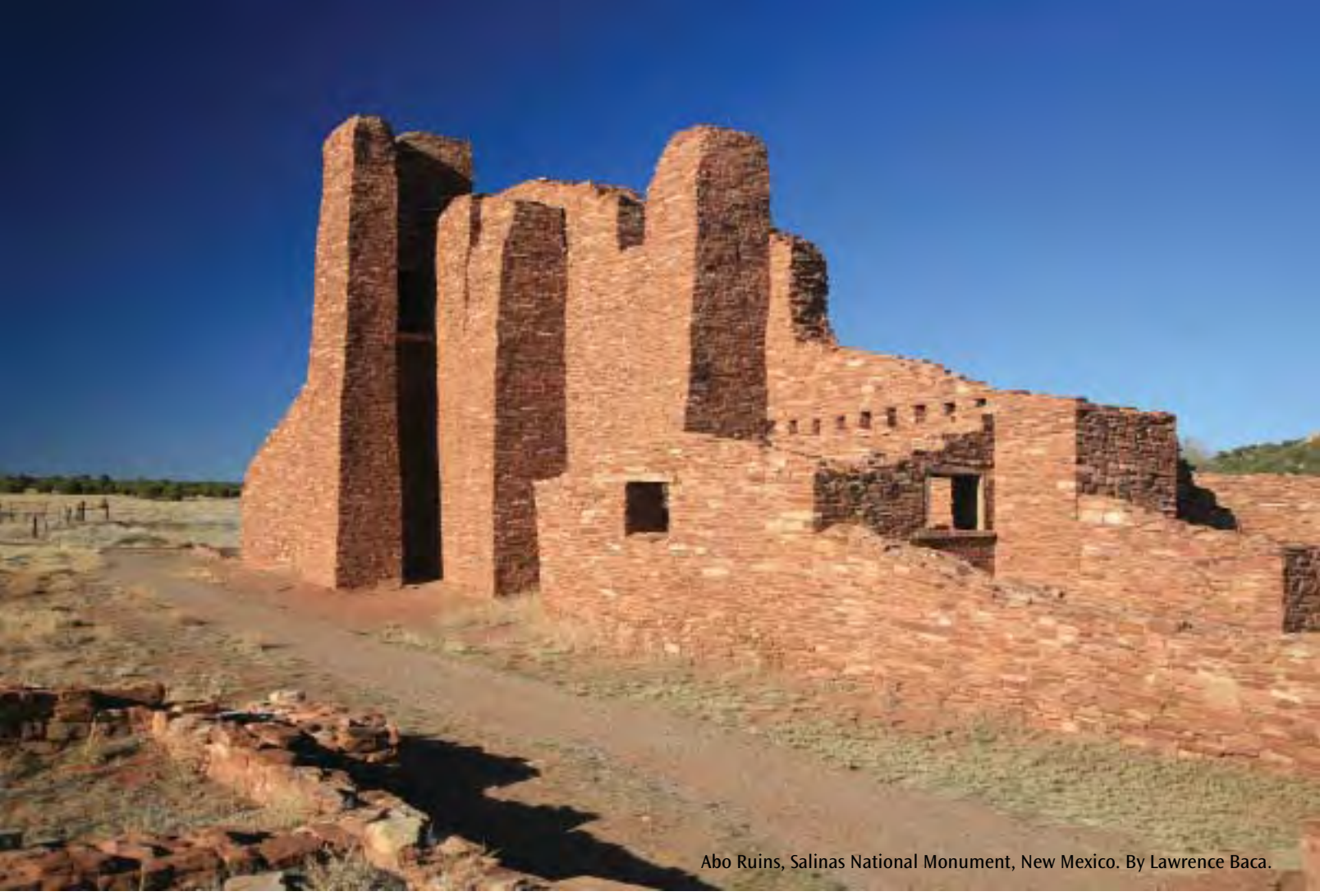
Renewable Energy Takes a Stumble But Is on the Right Path, Possibly Right Through Indian Country

By Tracey A. LeBeau

A New Green Economy: Journey or Destination?

As this article is being written, markets and policy related to renewable energy sources are in flux and will no doubt still be that way by the time this article is published. The new administration has numerous objectives to impact and stimulate the economy and marketplace. Congress has just passed a stimulus package that seeks to address the broadly supported goal of creating or retooling tax and financial incentives for creating a greener energy economy. But significant challenges remain, and addressing them will require more than one piece of stimulus legislation or one government bailout. These challenges include a pressing need to expand and build a transmission infrastructure across wide swaths of renewable resource-rich areas in order to accommodate the waves of new energy generation to be developed, which many—including the new President—hope will shore up our nation's energy security and economic needs. At the same time, this uncertainty about both the marketplace and policy gives Indian tribes a unique opportunity to become more active in supporting policies and solutions that address their own unique needs for infrastructure, diversification, and energy security.

This article will touch on the market and policy issues currently affecting the nation, which range from taxation to energy security and financing. The article also seeks to posit how the new Obama administration's long-term vision for a green energy economy, as laid out during his presidential campaign, might bolster the nation's potential position and interest in supporting climate change policy internationally. Finally, this article will discuss how this country's Indian nations (or as they are colloquially referred to in general as "Indian Country") may represent a unique point of nexus between federal interests, the marketplace, and a new frontier poised to host the growth of infrastructure needed for sustainable energy while also supporting growing tribal populations, regional economies, and the national interest. Indian tribes are ready for "nation building at home"[1] by investing, developing, facilitating, and participating in building the infrastructure required to support green energy.



Abo Ruins, Salinas National Monument, New Mexico. By Lawrence Baca.

Renewable Energy Sources Waiting Out the Storm: Markets and the Financing Environment in 2009

First we need to talk about change. Last year witnessed record growth, retraction, and gyrations in investment and financing activity in the renewable energy sectors. It has been estimated that, when the final numbers come in, the capacity of new wind generation in 2008 will have reached nearly 7,500 megawatts (at least 35 percent of new capacity added), bringing total installed wind capacity in the United States to about 24,000 megawatts.[2] According to some estimates, the solar industry will have nearly doubled installations of solar photovoltaic modules that same year.[3]

Midway through 2008, however, the renewable energy sector saw the beginnings of contracting credit and debt markets—a clear sign that dark clouds were gathering on the horizon. By the fall, even though the sector sighed with some relief when the Emergency Economic Stabilization Act of 2008 extended tax credits for renewable energy projects,[4] many companies involved in producing renewable energy were forced to re-think development commitments as they saw their tax equity partners facing major problems, their credit facilities being scaled back, and long-term power prices starting to contract. Aside from the global effects of the recession, these economic problems have created an interesting set of topsy-turvy factors.

For instance, a previously rapidly growing wind energy sector, which had the effect of heating up prices for wind turbines, is now seeing turbine manufacturers slowing production as manufacturers check and re-check the status of orders and commitments given by companies that are now pushing back installation dates. Meanwhile, the prices of steel, electric, natural gas, and power are dropping. Therefore, when the sector rebounds, at least for a while, project proponents may well find that turbine supply and manufacturing capacity have had a chance to catch up, that steel prices have moved to a point that permits the competitive pricing of new equipment; and that the price of oil and concomitant price of natural gas and power have stabilized to levels that are more in keeping with long-term expectations. This scenario is not exactly a takeaway that has a silver lining, but it would be a curious turn of events.[5] As one commentator noted recently—and he was discussing only wind energy—

> Although, [wind energy] industry growth rates will slow down, it does not mean the industry will stall. While unfortunate for certain industry players, the economic slowdown will turn out to be a growth opportunity for others. Cash-rich companies and those with a higher credit rating will be able to extend their

wind portfolios at reasonable prices. Cheaper equipment available at shorter lead times for new installations, as well as wider availability of specialized construction services and fiercer competition along every segment of the value chain, will force total project costs down.[6]

When it comes to solar energy, analysts' recent year-end reports turned bearish. Overall, analysts began to advise institutional clients that, given the apparent lack of any new major financing for solar energy projects on the horizon, if the stimulus had not passed, an oversupply of photovoltaic modules was imminent. Analysts also warn that, even though the U.S. market is the most interesting market worldwide, in the near- and mid-term are likely to see an increase in solar power used by public utilities but will probably show lower profit margins than many may have expected initially.[7] However, anecdotally, it is worth noting that, given all the bearish talk that the solar industry—in both solar thermal and photovoltaic—the market is still on a fast track with respect to new start-ups and venture capitalists' investment in technology. In addition, many European solar powerhouse corporations are establishing corporate and manufacturing footprints primarily throughout the American Southwest and California. Hence, even though caution abounds, the market may be taking a breath but still establishing footprints in the Americas.

But in the midst of all these sectoral challenges, a new administration has set its sights on utilizing the renewable sector as the linchpin in its economic plans to move the United States, once again, into a new economic era—the age of green energy. Doing so, however, will require initiating an aggressive legislative and policy agenda on all levels—ranging from restructuring economic incentives and setting national renewable portfolio standards to encouraging investment in transmission technology and rewriting tax policy.

Renewable Energy Policy: Band-Aids or a Comprehensive Fix?

Replete with aggressive goals focused on massive green-collar job creation in manufacturing and deployment, the new administration's campaign platform to create a clean energy economy will require an innovative and substantive overhaul of legislation and policy. President Obama campaigned on the creation of a national base renewable portfolio standard (RPS) of 10 percent of energy to renewable sources by 2012 and 25 percent by 2025. Because there is support for some sort of RPS in both houses of Congress, those levels may hold but that will not be the hard part. The solar industry is pressing hard for an RPS but with specific solar carve-outs, as is the case with many state renewable portfolio standards. Both timing and enforcement mechanisms associated with these proposals are also issues that must find a wider consensus.

The President's final stimulus package will address shorter-term adjustments in the law, and government agencies will do what they can to address regulatory issues to complement legislative initiatives. But 2009 is likely to be the year when the tough issues will be addressed, and many of them will require substantive restructuring in the way our country creates incentives and builds the foundation for an energy economy in the wake of a worldwide economic recession. One of the major choices will between incentives that were deployed in past years past, which would continue a stop-and-start clean energy economy, and new incentives that will create a sustainable future.

Incentives Will Be a'Changing: Tax Credits Anyone?

It was only in late 2008 that the industries involved in renewable energy throughout the world celebrated when, as part of the bailout legislation, the U.S. Congress voted to extend tax credits for one year primarily for the production of wind energy and investment tax credits for eight years primarily for solar energy systems. However, what was not fully anticipated while these extensions were being lobbied was the timing and the extent to which the economic crisis would affect the few financial institutions that are heavily involved in financing the renewable energy sector.

At the height of growth in attention to renewable energy, between 2007 and 2009, approximately 14 institutional investment banks and entities (largely representing tax equity investors) were players in the vast majority of renewable energy projects and the financing of other projects (portfolios, credit facilities, and the like). In the aftermath of the financial meltdown, many of the institutions that were using these sizable tax credits no longer needed them, because these institutions' overall tax bases and large losses affected their capacities to take advantage of the large tax credits, or, in many cases, they simply went out of business. At the beginning of 2009, only three or four of these institutions were still standing, and even they had scaled back to wait until the turbulent seas of the markets and legislative bodies were calm enough to see their way through to the other side.

Industry lobbyists have been urging Congress to make any tax credits or subsidies that the owner of a project cannot use refundable, in addition to provide an option to carry back unused tax benefits for up to 10 years (with refunds of taxes paid during that period). Accelerated depreciation is important to these deals as well and often amounts to more than half the tax incentive for some projects. The sticky issue here is that there is no easy strategy to make depreciation refundable without major legislative changes; therefore, the stimulus legislation addressed shorter-term remedies, such as a limited term grant in lieu of tax credits.

Another option or discussion point has been the idea of expanding the class of potential tax equity investors by allowing individuals to invest, by changing passive loss and at-risk rules, and by changing the legislation in a way that would allow individuals to invest through publicly traded partnerships. Another sensible—but unpopular—option is the idea of trading tax credits; this would allow entities that cannot use the credits to transfer them to other entities that can use them, as has been done in other sectors, such as housing and even unconventional energy. Nontaxable entities such as electric cooperatives, Indian tribes, municipal utilities, and their counterparts are deeply frustrated with

this aspect of financial incentives for using renewable energy, because the stringent rules regarding the use of these incentives do not easily allow these entities to participate in the financing or ownership of such projects. Congress attempted to address this problem by creating Clean Renewable Energy bonds,[8] but because of inadequate appropriations for the bonds, this answer has been a good try but far from a home run. In the end, giving incentives to those who have an economic and political interest in investing in renewable energy, rather than those whose primary interest is to minimize their tax capacity, is a challenge that Congress and the administration will approach either incrementally or boldly when they work to restructure the policy tenants of investing in renewable energy and infrastructure for the electricity sector.

Energy Legislation: Post-Stimulus Plan and Setting the Stage

Providing an added layer of complexity is another basic policy question that will also re-emerge in 2009: climate change and the Kyoto Protocol. Within two weeks of the inauguration, President Obama named a new envoy for climate change, signaling the intention to prepare for upcoming discussions of the issue. The United States, along with its international counterparts, set a December 2009 deadline by which to conclude a new global climate agreement. It is anticipated that Congress will take up supporting legislation designed to set new emissions standards,[9] among other things. The timing of this, in concert with the Obama administration's agenda to create a new green energy economy, could not be better in many respects.

The creation of a new wave of players in clean energy economy who have significant political and economic clout within U.S. borders will also create a new business class that could demonstrate the positive economic impact of clean energy on the U.S. economy by supporting international emissions standards. Making climate change policy a political goal fueled by national economic self-interest is probably the best and most efficient way to effectuate the type of national and international policy change required. As David Rothkopf, a Carnegie Endowment scholar, recently noted, "Making America the world's greenest country is not a selfless act of charity or naïve moral indulgence. It is now a core national security and economic interest."[10] Diplomacy on the issue of climate change may be a good way to pave the road to sustainability for this new green economy.

Transmission, Transmission, Transmission

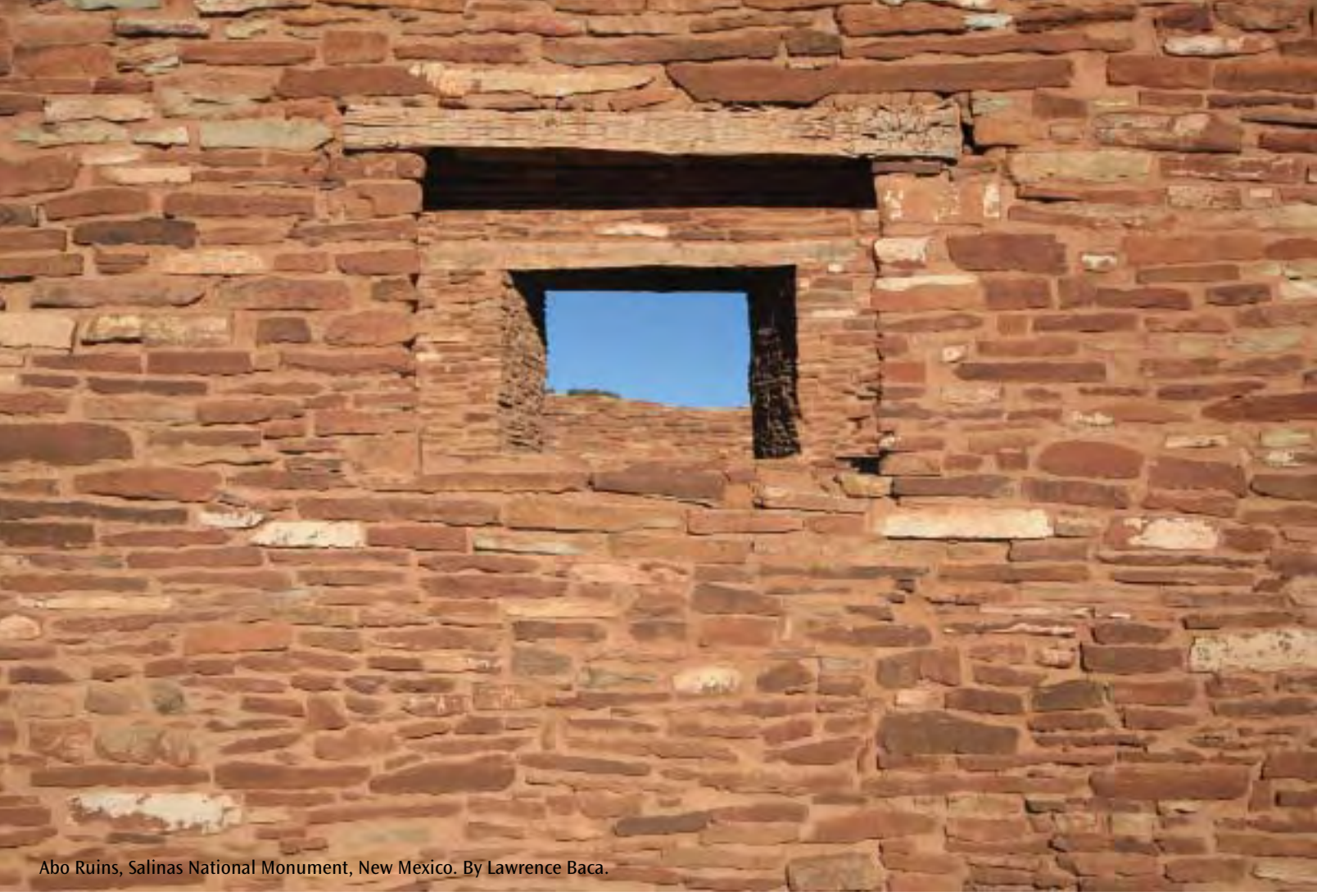
Even though a discussion of transmission of electricity probably fits in the previous paragraph, the issue is so critical to the future of any development of energy generation that the topic deserves separate treatment. Without transmitting electricity, the windiest and sunniest resources in the world cannot be developed to benefit the population on the scale necessary to provide an effective response to the need to reduce greenhouse gas emissions significantly. Even though the distribution of renewable energy sources is an important part of the overall solution—and the only solution in many communities—scale is a critical issue in this process. Scale provides the rationale investors need to expand manufacturing capacity, which in turn creates economies of scale that encourage competition, which results in driving down prices on a per unit basis. In many cases, the concept of scale allows for more efficient investment in transmission infrastructure when it is paired with large installations of renewable energy sources. At this moment in the adolescence of industries involved in renewable energy, it seems difficult to identify even what is a chicken and what is an egg properly, but transmission of electricity is widely accepted as one of the single most important aspects in growing the generation of renewable energy to the levels that the Obama administration has targeted. This challenge has been called the "Trillion Dollar Conundrum."[11]

Movement is afoot in transmission policy, legislation, and markets. Because it is widely accepted that the United States' old "decrepit" electric infrastructure is in dire need of upgrading and that, if production of renewable energy is to triple, as is the current goal (or even double), it is imperative to come up with a new approach to the transmission of electricity. Two of the most important related considerations for transmission are (1) siting authority and streamlining regulatory approvals and permitting and (2) investments (cost recovery and incentives).

There is, and has been, discussion about providing the federal government the same power of eminent domain that it now has with natural gas pipelines. However, even though it is doubtful that this issue could attract enough votes to approve such a jurisdictional hot potato, it is possible that some sort of federal process to certify the need could emerge and certainly make the process easier on federal lands, which, coincidentally, are largely in the West, where renewable resources are most plentiful. Earlier this year, for example, the Bureau of Land Management announced a one-stop shop to streamline permitting for renewable energy projects on and through the lands owned by the bureau. Streamlining and maintaining the critical tenants of the National Environmental Policy Act is the goal, especially for any targeted regional or zonal initiatives.

Almost as contentious will be deciding a process for recovering the cost of investment in new or expanded transmission projects for new generation deployment on the grid. Currently, there are cases in which the project proponent pays much of the cost for any upgrading or expansion needed or may share those costs with the transmission owner or utility company, which may or may not pass those costs on to customers. Discussion and legislative language has emerged involving low-interest short-term federal loans, particularly for projects for which financing cannot be secured as a result of current frozen credit and debt markets. Federal backstopping in the form of loan guarantees for electricity transmission that does not completely subscribe to the preferences of financial institutions or investors.

Other incentives will undoubtedly emerge. Industry is keeping a sharp eye on how those federal incentives



Abo Ruins, Salinas National Monument, New Mexico. By Lawrence Baca.

might help or hinder public-private investment opportunities. Many federal entities involved in the transmission of electricity—such as Bonneville Power and Western Area Power Administration—have a multitude of shovel-ready transmission projects on the books, and private companies with interests in those same areas would also like to see policies and incentives to provide for at least shared ownership opportunities, which, in the past, have resulted in successful projects.

In terms of policy and administrative initiatives, more than five years ago, the Federal Energy Regulatory Commission (FERC) issued FERC Order 2003,[12] which provided policies and procedures dealing with transmission interconnection and service requests that have been adopted by many of their jurisdictional and nonjurisdictional utilities. FERC's order was issued in response to a plethora of applications for projects involving renewable energy sources that proposed to interconnect transmission systems across the country, many of which were speculative, were clogging up the transmission application queuing system, and slowing down reviews and approvals on a national level. These new rules, which are now in the process of implementation by many transmission-owning entities, set higher standards in terms of fees and application requirements and are having the effect of forcing many project proponents, who are not as ready as they might have let on, to back out of the queue and allow the projects that are ready to be implemented to be processed accordingly. Although FERC's order is less visible to many who are not actively involved in the sector, this administrative action will have a tremendously important effect on the speed at which projects involving renewable energy can be developed and installed. Administrative efficiencies and policy changes can have a major impact on industry and market behavior, attracting capital for and focusing on the areas that hold the greatest promise for a sustainable green energy marketplace.

Indian Country Is Ready

The road to an area of great promise for a sustainable renewable energy market leads directly to—and through—Indian Country. Indian reservations, especially throughout the western United States, are rich in conventional energy sources and renewable energy resources that remain largely undeveloped. Tribal communities on most reservations have been growing at a dramatic rate and continue to do so. Thus, while development of the significant amount of renewable energy potential found in Indian Country can have a dramatic impact on large regions in the West, tribal communities also need energy supply and infrastructure to

serve their own members and as well as their commercial sectors. Properly managed under tribal leadership, development of alternative energy resources in Indian Country could serve as the model of how to develop sustainable energy and infrastructure.

In addition, key transmission corridors currently run through Indian reservations—or could do so in the future—and many of these tribes are anxious to develop their critical infrastructure and participate in the new green economy. Interest in the development of transmission capability in the western United States is at a peak today. However, up to now, transmission of electricity has represented a double-edged sword for Indian tribes: transmission can be a tool that tribes can control and master, or it can be a weapon that can and has been used against Indian tribes. Developers representing all sorts of interests have been scouting Indian reservations in an effort not only to develop projects but also to use tribal land as a backbone upon which to support needed transmission of electricity. Developers' plans are not in and of themselves all that sinister; but, if those parties who seek to leverage their position with the tribe—or among tribes in a region—do so, Indian Country will have again borne witness and fallen victim to a divide-and-conquer strategy. Not only would that result be a shame, it would also be a waste.

Transmission of electricity has been the bane of many tribal communities for many years, primarily because electric lines have led to hydroelectric or other electrical projects that have flooded tribal lands and disrupted Indian communities for decades. Federal, state, and regional organizations have been busily planning transmission corridors over the last two years, but Indian tribes have been left out of significant discussions, and, more often than not, tribal lands are excluded from the routing altogether. Why is this so? Anecdotally, in some cases, reasons have been made along these lines:

- because only Congress has the power of eminent domain over tribal trust lands, it was easier to exclude trust lands from prospective routing mapping exercises;
- because federal agencies have not heard from many tribes about their interest in being included or their consent to be included in these renewable mapping exercises, rather than be accused of not properly consulting with tribes federal agencies have excluded these tribal lands from maps that industry and government review to assess the potential of renewable resources potential; or
- because utility companies have had issues in the past related to the siting of transmission lines and rights-of-way, the utilites would rather err on the side of caution and seek routes that bypass Indian lands altogether.

Whether any of these reasons are valid or have any basis in fact is beside the point; the discussions and planning are moving swiftly by way of regional and state initiatives, and plans have been carefully drawn up with perhaps enough consensus to catch the interest of state and federal legislators. The net result may be that transmission lines may be sited leading to and from renewable energy centers that may exclude from them tribal lands. This potential makes any tribal renewable energy project even more difficult to develop because of limited ways to physically get energy to market or the possibility may make the undertaking uncompetitive in comparison with projects done by large centers of renewable energy sources, which will benefit from transmission of scale. The prospect of developing renewable energy has opened a door through which tribal leaders can pass and thereby assume a leadership role in discussions about alternative energy sources, rather than being consulted through a peephole, which his usually the case.

One major conundrum for many Indian tribes is that, although many now have capital they wish to invest in renewable energy projects, the current tax regime provides a disincentive for them to do so, because, in order to use tax credits most efficiently, tribes must usually bring on a tax-paying investor and owner (in the case of the production tax credits) for their costs to be competitive with those of other nontribal projects. It is a very frustrating state of affairs for many tribes who see the development of renewable energy sources as a way to diversify their economic holdings that is in keeping with cultural sensitivities. Native communities have been exceptionally good at adapting to new technology while being able to maintain their unique cultures. A well-quoted proverb encapsulates this tendency: "When the wind changes direction, there are those who build walls and those who build windmills." Indigenous peoples and American Indian tribes have incrementally incorporated new technology with grace for centuries. However, it is quite ironic that America now stands on the precipice of a new economic engine that tribes innovated centuries earlier—energy-efficient design, conservation techniques, and use of natural resources in a sustainable manner—but if tribes are not proactive, they may find themselves left behind.

A few tribes who do have capital to invest are, in the interim, looking at the technology needed for renewable energy instead, particularly in those sectors where technologies are still emerging and have attendant manufacturing prospects. Specifically, in the last year, several tribes have started new ventures: they have created tribal renewable investment funds, tribal corporations with which to hold interests in renewable energy projects, and intertribal corporate development companies with which to pool capital to enable them to take positions in projects and to give them investment opportunities. As the industry is looking for critical mass for projects, they are also looking to co-site and build manufacturing capacity to serve project needs and growing markets efficiently. Given that substantial critical railroads were forced through Indian Territory, and transportation corridors lie within vast areas of Indian reservations, manufacturing and technology deployment are compelling opportunities that numerous tribes—or their corporate alter egos—are exploring.

It is well known that Indian people have long been among this country's most patriotic citizens. Long before

Indians were granted citizenship in 1924, they were serving in the military and fighting for our freedom; and they have continued to do so in disproportionate numbers. Of the central ideas surrounding President Obama's administration and its plans for a new green economy is the idea of producing our own energy—a form of energy security for the United States. The idea is also a form of climate security. Indian tribes stand in a unique nexus between renewable energy resources and transmission of electricity in key areas of the West. Indian tribes would also be natural leaders for hosting and developing these key areas to promote climate security and energy security. This development would be a call to service that Indian tribes are absolutely ready to answer—and uniquely ready to do so.

Recommendations

The new administration and the federal agencies that are involved in Indian affairs are undertaking efforts to understand the needs of Indian tribes and to seize opportunities when engaging with Indian tribes as willing partners in the national effort to help build a clean energy economy. Throughout the new administration's transition and afterward, tribes and tribal leaders have been making recommendations to make current Indian programs more effective and responsive to the needs of tribal governments and communities. One initial recommendation was to establish more effective coordination of intra- and interagency activities; this proposal was a direct result of the poor coordination—or lack of any coordination—among multiple federal agencies during the term of the last administration in responding to tribal initiatives related to infrastructure.

In addition to recommendations related to administrative and regulatory actions, Indian tribes requested funds for important Department of Energy programs and energy provisions that were authorized but never implemented or appropriated. Streamlining regulatory approvals related to leasing and/or joint development of energy projects on tribal lands has also become a pressing issue, because most projects involving renewable energy resources that are sited on Indian lands usually require approval by the Department of the Interior's Bureau of Indian Affairs, a process that necessitates contingent National Environmental Policy Act reviews and approvals.[13] Other recommendations included the following:

- lengthening federal contract power purchase agreement terms to longer than five years (as is the current practice) for renewable energy projects located on tribal lands;
- providing incentives for upgrading and expanding electric transmission systems in key areas that have renewable energy resources, such as Indian reservations in the Upper Great Plains;
- creating a special lease review team within the Bureau of Indian Affairs with expertise on projects involving renewable energy and transmission of electricity;
- supporting the ability to transfer or refund tax credits for developing renewable energy for Indian tribes or their tribal corporations that have partnership agreements with others;
- developing a preference in federal transmission interconnection and service; and other incentives that effectively promote investment on Indian lands and by tribes themselves.

The Green Road Ahead

Numerous tribes share a common cultural concept of walking in balance with the natural environment. Walking "the red road" is a descriptive phrase that refers to the principle of walking the road of balance—living right and following the rules of the creator, among which is the need to take care of all living things so that they will, in turn, take care of you. This principle is so commonly accepted among Indian people that neither tribes nor the outside world question that this is not just an idealized version of how tribal people operate in the world but that the belief is as real as the problems that tribes, as a pivotal part of our society, also share as a part of that society. Perhaps we also all need to walk—collectively—a new green road.

Unless Indian people and leaders watch closely and participate actively in the creation of a new green economy, to help chart its course, tribal communities may very well be bypassed by this road altogether, or they may become victims of its construction. Throughout the industrialization of the United States—and particularly in energy development throughout the 20th century—Indian tribes fell victim to becoming primarily export nations within a nation, with industry exploiting raw natural resources that were either shipped off reservations or burned for generation purposes. All these trends and events primarily benefited nontribal communities and development throughout the western United States. Environmental justice was a term coined by primarily urban communities that were put in the same position, but Indian Country was probably the primary genesis of the idea, or at least, the sad inspiration for it. What would be regrettable is, if in our rush to foster and facilitate green energy development and its attendant transmission, tribes in the 21st century were cast aside and decades later law review articles were to cite a historical disgrace akin to climate change justice or green energy poverty, where, upon the ascent of this green revolution, disproportionate negative effects were exacted upon native peoples.

Nevertheless, it is also the responsibility of tribal communities and tribal leadership of all ranks to design their role or roles in this growing movement thoughtfully. While their governmental counterparts struggle with designing regulatory regimes to control, yet facilitate, investing in renewable energy in their jurisdictions, tribal governments should do so as well.

Natural resources, like wind and water, that are found on tribal lands are resources that Indian tribes can develop for the benefit of their community at large because they are inherently tribal resources. They are also resources to which individual members of the tribe should have access in order to benefit their households if the proper regula-

tory environments are thoughtfully adopted and enforced within their territories, because commercial and distributed energy development are sensible ways to develop these resources in a sustainable manner. Sustainability is not just a tribal ethic; it is a corporate and leadership ethic and Indian tribes are particularly well positioned to take lead in pursuing and preserving it as the energy industry and the nation start down this green road together. **TFL**

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Endnotes

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[9]Nigel Purvis, *Climate Trading: The Case for the Climate Protection Authority*, HARVARD INTERNATIONAL REVIEW, 30, no. 2, at 63 (Summer 2008).

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[13]*See* 25 U.S.C. § 415 requiring the Bureau of Indian Affairs' approval to lease Indian lands; *see also* 25 U.S.C. § 81 requiring the bureau's approval of all contracts that "encumber Indian lands for a period of 7 years or more."