

Renewable Energy Depends on Tribal Sovereignty

By Elizabeth Ann Kronk Warner*

I. INTRODUCTION

Ten years ago, I wrote an article examining the development of renewable energy projects in Indian country.¹ Over the past ten years, many things related to renewable energy development in Indian country have changed, but some things remain unchanged. With the advantage of hindsight, it is now easier to glean trends from projects that have been (un)successful. When reflecting on projects that have been successfully developed in Indian country,² a true recipe for project realization emerges—the key to such realization turns on the centering of tribal sovereignty within the project design. Although the obstacles from ten years ago remain similar, the projects that are deemed a success are those where the partners worked in a way that promoted and respected tribal self-determination and sovereignty. The partners engaged in these developments were able to respond to project obstacles in a nimble and creative way.

Although many of the challenges to renewable energy development in Indian country remain like those that existed a decade ago, some notable things have changed. For example, the past couple of years have brought an increased federal interest in energy development. The Trump Administration was very supportive of energy development generally

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1. Elizabeth Ann Kronk, *Alternative Energy Development in Indian Country: Lighting the Way for the Seventh Generation*, 46 IDAHO L. REV. 449 (2010). Also, “[r]enewable energy comes from a variety of sources, including wind, solar, hydroelectric power, geothermal, and biomass.” U.S. GOV’T ACCOUNTABILITY OFF., GAO-15-502, REPORT TO THE CHAIRMAN, COMMITTEE ON INDIAN AFFAIRS, U.S. SENATE, INDIAN ENERGY DEVELOPMENT: POOR MANAGEMENT BY BIA HAS HINDERED ENERGY DEVELOPMENT ON INDIAN LANDS 8 (2015) [hereinafter REPORT TO THE CHAIRMAN].

2. For purposes of this Article, “success” refers to projects that realize the goals of all partners involved, including the tribes themselves.

(although not necessarily renewable energy development).³ And, even if the Trump Administration's goal of "energy dominance" does not typically include renewable energy development, the individual states and the rest of the world are increasingly moving away from non-renewable development.⁴ For example, many states have developed Renewable Energy Portfolio Standards (RPS) in order to increase the amount of energy utilized in the state that comes from renewable sources.⁵ "Renewable portfolio standards and financial incentives can provide markets for renewable electricity and significantly lower barriers to finding non-tribal off-takers. Energy portfolio standards can also benefit tribal renewable energy development by directing utilities to purchase additional renewable energy resources."⁶ Additionally, the Biden Administration has been very supportive of renewable energy development. Biden's "Energy Efficiency and Clean Electricity Standard" would require utilities to obtain energy from renewable sources, and would promote climate-friendly technologies.⁷ As a result, there seems to be demand for the development of renewable energy both within the United States and globally.

3. See Wesley J. Furlong, *The Other Non-Renewable Resources: Cultural Resource Protection in a Changing Energy Future*, 42 PUB. LAND & RES. L. REV. 1, 1 (2020).

4. *Id.* at 9 (citing Shane Croucher, *Defying Trump, Governors Who Represent Over Half of the U.S. Population Pledge to Uphold Paris Climate Agreement*, NEWSWEEK (Nov. 5, 2019, 5:04 AM), <https://www.newsweek.com/trump-paris-climate-change-agreement-governors-republican-democrat-1469769> [<https://perma.cc/LTF3-8ZK2>]); James Ellsmoor, *Renewable Energy is Now the Cheapest Option – Even Without Subsidies*, FORBES (June 15, 2019, 2:39 PM), <https://www.forbes.com/sites/jamesellsmoor/2019/06/15/renewable-energy-is-now-the-cheapest-option-even-without-subsidies/?sh=2b8dc13c5a6b> [<https://perma.cc/BQ3U-MZNF>].

5. "Over 40 states have adopted renewable [energy] portfolio standards (RPS)—a mandatory requirement for state-regulated utilities to obtain a certain percentage of their electrical power from renewable resources (and not typically including hydroelectric power). The RPS will vary by state, ranging from 30% down to 10%." Pilar M. Thomas, *Part Two – The Legal Landscape*, 2014-5 ROCKY MTN. MIN. L. FOUND. PROC. 11A (2014) [hereinafter Thomas, *Part Two*]. To see detailed information on the RPS adopted by each state, see *State Renewable Portfolio Standards and Goals*, NAT'L CONF. OF ST. LEGISLATURES, <https://www.ncsl.org/research/energy/renewable-portfolio-standards.aspx> [<https://perma.cc/U9JE-QZD2>] (last visited Mar. 9, 2021). See also Michael Maruca, *From Exploitation to Equity: Building Native-Owned Renewable Energy Generation in Indian Country*, 43 WM. & MARY ENV'T. L. & POL'Y REV. 391, 416 (2019).

6. DR. THOMAS ELISHA JONES & DR. LEN EDWARD NECEFER, IDENTIFYING BARRIERS AND PATHWAYS FOR SUCCESS FOR RENEWABLE ENERGY DEVELOPMENT ON AMERICAN INDIAN LANDS 21 (Nov. 2016), https://www.energy.gov/sites/prod/files/2017/05/f34/Sandia_Report_2016-311J.pdf [<https://perma.cc/FN4B-2T76>]. The Sandia Report goes on to give an example—"the 50MW installation on the Campo Kumeyaay reservation provides renewable electricity demands created by California portfolio standards." *Id.*; see also Thomas, *Part Two*, *supra* note 5 ("For tribal projects that will export power, these state policies may benefit the project by improving the ability to find a buyer or improving the economics of the project through incentives.").

7. Steven Mufson & Juliet Eilperin, *Biden's Infrastructure Plan Aims to Turbocharge U.S. Shift From Fossil Fuels*, WASH. POST (Mar. 21, 2021, 4:37 PM), <https://www.washingtonpost.com/climate-environment/2021/03/31/biden-climate-infrastructure/> [<https://perma.cc/YB7D-7HYB>].

Not only does a demand for renewable energy exist, but Indian country possesses the resources to meet the demand. “The National Renewable Energy Laboratory (NREL) estimates that there is 17,600 billion kWh/year of solar energy potential and 535 billion kWh/year of wind energy potential on Indian Lands in the lower 48 states. This is enough to power millions of homes. . . .”⁸ The areas of highest potential for solar and wind energy development overlap significantly with Indian country, and the total amount of potential energy that could be generated from these sources located within Indian country is greater than what is currently produced in the United States.⁹

Given the demand for renewable energy generally exists and Indian country possesses the natural resources to be able to develop such energy, it might seem odd that relatively few renewable energy projects have been developed to completion within Indian country. An examination of successfully completed projects is therefore helpful to determine what combination of factors leads to successful development in Indian country. As this Article discusses, tribal sovereignty and self-determination play an important role in such development.¹⁰ “Indian control over projects in Indian Country—especially development and economic projects—is strongly correlated with the long-term success of those projects, as well as Indian perceptions of those projects.”¹¹ However, despite research and examples consistently demonstrating that tribal control over projects increases the likely success of this project, tribes have not exercised much control over the majority of renewable energy development projects in Indian country.¹²

In addition to the rising demand for renewable energy development over the past ten years, there have also been numerous examples of instances where tribes challenged the installation of energy projects within

8. JONES & NECEFER, *supra* note 6, at 6 (citations omitted). In an updated report from July 2018, it appears that the development of concentrated solar power (CSP) within Indian country could represent about 8.3% of the total national CSP potential. Anelia Milbrandt, Donna Heimiller & Paul Schwabe, *Techno-Economic Renewable Energy Potential on Tribal Lands*, NAT’L RENEWABLE ENERGY LAB’Y, v–vi (July 2018), <https://www.nrel.gov/docs/fy18osti/70807.pdf> [<https://perma.cc/67LJ-DN5D>]. That number jumps to 15.8% when land within 10 miles of tribal land is included in the study. *Id.* For wind, it appears that the wind resources within Indian country could account for 7.8% of the national generation, and up to 16% if land within 10 miles of tribal lands is included. *Id.* Regardless of the actual amount available, it does appear that significant potential renewable energy resources exist within Indian country and nearby.

9. Maruca, *supra* note 5, at 402.

10. *See infra* Part II.

11. Nicholas M. Ravotti, *Access to Energy in Indian Country: The Difficulties of Self-Determination in Renewable Energy Development*, 41 AM. INDIAN L. REV. 279, 317 (2017).

12. REPORT TO THE CHAIRMAN, *supra* note 1, at 3–4. “In general, Interior’s Bureau of Indian Affairs (BIA), along with multiple other federal and tribal agencies, govern the development of Indian energy resources, and BIA often holds final decision-making authority.” *Id.*

and near their territories for fear that such projects would negatively impact their cultural resources and environment.¹³ The Trump Administration's focus on energy dominance and increased energy development "brought the seemingly-existential conflict between the protection of tribal cultural resources and the development of non-renewable energies and extractive resources into stark relief."¹⁴ But, such conflict may be avoided through the development of tribal renewable energy resources. As the discussion below highlights, such development when done by centering tribal sovereignty, can be done in a way that avoids negative impacts to cultural resources.

Just based on these developments over the past ten years a reexamination of renewable energy development in Indian country is warranted. Accordingly, this Article focuses on legal developments that impact the success of renewable energy projects within Indian country.¹⁵ As developed below, there are many reasons that tribes may wish to engage in such development, including "opportunities for diversification, energy independence, environmental sustainability, and new revenue streams. . . ."¹⁶ But such development does not come without a cost. To develop the wind and solar energy potential within Indian country, it is estimated that over \$75 billion in project investment will be necessary.¹⁷ Because of the benefit to tribes and the hefty cost, this Article examines factors that will help ensure the successful development of renewable energy resources within Indian country.

Ultimately, the way forward is clear—successful renewable energy development in Indian country turns on promotion of tribal sovereignty. To reach this conclusion, the Article begins with introductory discussions of tribes, Indian country, and the extent of tribal regulatory control. This background is helpful to fully understand the concept of tribal sovereignty and how regulatory control works in Indian country. The Article then moves to a deeper discussion of why renewable energy development in Indian country might be attractive—and, this Part considers the attractiveness of such development from the perspective of a tribe, non-

13. See Jeanette Wolfley, *Embracing Engagement: The Challenges and Opportunities for the Energy Industry and Tribal Nations on Projects Affecting Tribal Rights and Off-Reservation Lands*, 19 VT. J. ENV'T. L. 115, 116–19 (using the example of the standoff at Standing Rock over the proposed Dakota Access pipeline to examine concerns tribes have about the development of energy projects, which includes impacts to cultural resources).

14. Furlong, *supra* note 3, at 2.

15. There are non-legal issues that contribute to the success of such development, such as the role of tribal leadership, staff, and governance in renewable energy development, but these issues are beyond the scope of this Article. See generally JONES & NECEFER, *supra* note 6, at 14–17.

16. Milbrandt et al., *supra* note 8, at v.

17. *Id.* at 39.

tribal investor, and the federal government. Having established why such development would be of potential interest to several parties, the Article then discusses some of the primary obstacles that currently exist to successful development of such projects in Indian country. The Part shows that successful development of renewable energy projects in Indian country will turn on the ability of partners to be nimble, focused, and creative. The Article then moves on to discuss several examples of where both small- and large-scale renewable energy development has occurred in Indian country. Finally, the Article concludes with some brief recommended policy changes that, if implemented, will help to encourage more renewable energy development in Indian country. This Article ultimately concludes that tribal renewable energy development in Indian country that centers tribal sovereignty has the greatest likelihood of success.

Notably, this Article limits its discussion of renewable energy development within Indian country to tribes located within the lower forty-eight states.¹⁸ This is because the laws impacting Native Hawaiians and Alaskan Natives differ significantly from those impacting tribes in the lower forty-eight states.

II. UNDERSTANDING THE PLAYING FIELD: TRIBAL SOVEREIGNTY, INDIAN COUNTRY, AND TRIBAL REGULATORY CONTROL

To truly understand the contours of renewable energy development in Indian country, it is necessary to begin with understanding tribal sovereignty and how such development in Indian country may look different from development elsewhere. This background will also help to provide context to what it means to center tribal sovereignty in the development of renewable energy in Indian country. To accomplish this, this Part begins with a brief primer on tribal sovereignty and Indian country. With this background in place, the Part moves to a discussion of the regulatory framework that is applicable in Indian country. This subpart helps to explain how the regulation of renewable energy development may look different in Indian country. This Part therefore provides the foundation upon which subsequent parts of the Article are built upon.

A. *Understanding Tribal Sovereignty*

To understand tribal sovereignty, we must begin at the beginning of the United States. Most tribes predate the formation of the United States

18. This is consistent with other studies that have been similarly limited. See *e.g., id.* at 38.

of America, having existed as governmental entities for centuries.¹⁹ Tribal governments therefore exist entirely separate from the federal and state governments; their sovereignty originating in authority given to the tribal governments by their citizens rather than as a delegation of authority from the federal government.²⁰

As the source of sovereignty for tribal governments differs from states and federal governments, tribes also differ in the law applied within the tribes' territory. And, although Congress and the U.S. Supreme Court have placed limitations on tribal sovereignty over the centuries, tribal sovereignty remains strong as applied to tribal citizens and tribal territories.²¹ As an example of this, numerous tribes have developed their own laws over the centuries. Tribes have developed tribal customary law based on centuries of customs and traditions. Additionally, tribes increasingly create intertribal and intratribal common law.²² In fact, "the wide majority of tribal courts apply intertribal common law in almost every decision involving nonmembers."²³ Some tribal courts are increasingly including such tribal customary law into tribal court decisions.²⁴ Other tribes may have adopted and adapted state and federal law.²⁵ Accordingly, the law applicable in Indian country can be multifaceted and certainly differs as between tribes.

Ultimately, although tribal sovereignty is limited in some ways, tribal sovereignty persists today. Once the federal government recognizes tribal sovereignty, that sovereignty continues unless divested by Congress.²⁶ Accordingly, any discussion of law applicable within Indian country must start with the premise that tribal sovereignty remains and then look to see whether that sovereignty has been divested.

The relationship between tribes and the federal government is a dynamic one.

When the modern United States of America, which came into

19. See e.g., *McClanahan v. St. Tax Comm'n of Ariz.*, 411 U.S. 164, 172-73 (1973) ("It must always be remembered that the various Indian tribes were once independent and sovereign nations, and that their claim to sovereignty long predates that of our own Government.").

20. COHEN'S HANDBOOK OF FEDERAL INDIAN LAW, § 4.01 (Nell Jessup Newton et al. eds., LexisNexis 2005) (discussing tribal powers and tribal inherent sovereignty).

21. See *id.* at § 4.01(1)(b).

22. For a discussion of the development of intertribal and intratribal law, see Matthew L.M. Fletcher, *Toward a Theory of Intertribal and Intratribal Common Law*, 43 HOUS. L. REV. 701, 718 (2006).

23. *Id.* at 721.

24. For an example of tribal courts including tribal customary law into their decisions, see *In re Appeal of Lee*, 6 Am. Tribal L. 788, 791 No. SC-CV-32-06 (Navajo 2006); *Village of Mishongnovi v. Humeyestewa*, 1 Am. Tribal L. 295, 302 No. 96AP000008 (Hopi Ct. App. 1998).

25. See Hopi Tribal Council Res. No. H-12-76.

26. E.g., COHEN'S HANDBOOK OF FEDERAL INDIAN LAW, *supra* note 20, at § 1.03.

existence in the 18th century, was first established, many tribal nations were both politically and militarily strong.²⁷ The newly created federal government originally negotiated with tribes on a government-to-government basis.²⁸ As a result, most negotiations between tribal governments and the federal government were initially conducted using treaties. The use of treaties was also consistent with the fact that tribal governments were extra-constitutional.²⁹

Starting in 1823, however, the relationship between the federal government and tribes started to change. Chief Justice Marshall applied the ideas promulgated during the European “Age of Discovery” to the United States when he adopted the Doctrine of Discovery in the first of the Marshall trilogy of cases that serve as the foundation of modern federal Indian law.³⁰ In *Johnson*, the U.S. Supreme Court considered whether Indian tribes maintained title to their property and could therefore sell the property, or whether the United States had obtained title through Britain’s discovery of the property in question.³¹ Ultimately, Chief Justice Marshall determined that the Doctrine of Discovery applied and therefore Indians had the right to occupy the land in question but that exclusive title rests with the discoverer. Furthermore, Marshall explained that the United States, as the exclusive owner of the property, maintained the legal right to extinguish the Indian right of occupancy at any time.³²

Following the Court’s decision in *Johnson* and two other Indian law decisions that came about a decade later,³³ the U.S. Supreme Court was relatively quiet on the issue of tribal sovereignty for approximately fifty years. However, at the end of the 19th century, the Court reached a couple of decisions that had the impact of further entrenching the federal government’s role in Indian country. In *United States v. Kagama*,³⁴ the U.S. Supreme Court considered whether the federal government had the authority to enact legislation impacting criminal jurisdiction in Indian

27. *See id.*

28. DAVID H. GETCHES, CHARLES F. WILKINSON, ROBERT A. WILLIAMS JR. & MATTHEW L.M. FLETCHER, *CASES AND MATERIALS ON FEDERAL INDIAN LAW* 44–48 (West 6th ed. 2011).

29. *See* COHEN’S HANDBOOK OF FEDERAL INDIAN LAW, *supra* note 20, at § 1.03.

30. *Johnson v. M’Intosh*, 21 U.S. 543, 543 (1823).

31. *Id.* at 571–73. Given Great Britain was the legal predecessor to the United States, the United States assumed Britain’s legal rights to the property in question upon the United States’ secession from Great Britain. *Id.* at 587–88.

32. *Id.* at 573, 587. As described below, the Court’s decision in *Johnson* continues to effect tribes today and renewable energy development in Indian country specifically, as the decision gives the federal government considerable say over the use and management of projects on Indian lands that are held in trust for tribes.

33. *Cherokee Nation v. Georgia*, 30 U.S. 1 (1831); *Worcester v. Georgia*, 31 U.S. 515 (1832).

34. 118 U.S. 375 (1886).

country.³⁵ In reaching its decision that Congress did have the authority to enact such legislation, the Supreme Court determined that the United States owes Indian tribes a “duty of protection” and, therefore, the federal government has plenary authority over Indian country.³⁶ Since this time, the federal government has exercised substantial authority in Indian country.

During this time, Congress also enacted laws that affected Indian land holdings—laws that still impact renewable energy development in Indian country today because they created fractionated land ownership in Indian country. Toward the end of the 19th century, Congress enacted a series of acts, such as the General Allotment Act or Dawes Act.³⁷ The purpose of these acts was to divide or allot land held by Indian tribes into individual parcels; many parcels were 160, 80 or 40 acres.³⁸ Allotted lands were then taken from the tribes and given to individual Indians.³⁹ Remaining lands were often opened to non-Indian homesteaders for settlement.⁴⁰ As a result of the allotment acts, much of Indian country is now “checkerboarded,” meaning that many different entities may own land in Indian country such as the United States, tribes, Indians and non-Indians.⁴¹ “The primary effect of the Allotment Act . . . was a precipitous decline in the total amount of Indian-held land, from 138 million acres in 1887 to 48 million in 1934.”⁴² Because of this checkerboarding effect, any development in Indian country, including renewable energy development, can face challenges related to the determination of who owns which parcels of land needed for the development.

Jumping forward several decades and following the civil rights movement of the 1960s, the federal government moved toward a policy of promoting tribal self-determination. Notably, the promotion of tribal self-determination is still the policy of the federal government today, and as explored below,⁴³ this policy may be one of the reasons why the federal

35. *Id.* at 376.

36. *Id.* at 383–84; *see also* *Lone Wolf v. Hitchcock*, 187 U.S. 553 (1903). *Lone Wolf v. Hitchcock* involved the ability of the U.S. Congress to abrogate provisions of a treaty between the federal government and Indian nations. *Id.* at 563. In holding that Congress did have the authority to abrogate treaties, the U.S. Supreme Court relied on Congress’ plenary authority to act within Indian country. *Id.* at 565.

37. 24 Stat. 388 (1887).

38. Judith V. Royster, *Of Surplus Lands and Landfills: The Case of the Yankton Sioux*, 43 S.D. L. REV. 283, 284 (1998).

39. *Id.*

40. *Id.*

41. Jamie Kay Ford & Erick Giles, *Climate Change Adaptation in Indian Country: Tribal Regulation of Reservation Lands and Natural Resources*, 41 WM. MITCHELL L. REV. 519, 534 (2015).

42. WILLIAMS C. CANBY JR., *AMERICAN INDIAN LAW IN A NUTSHELL* 23 (West 5th ed. 2009).

43. *Infra* Section III.A.

government would support renewable energy development in Indian country. President Nixon ushered in this historical era with his message to Congress on July 8, 1970.⁴⁴ President Nixon indicated that the federal government should adopt policies promoting tribal autonomy and allowing for tribes to take over federal programs where appropriate.⁴⁵ Congress overwhelmingly adopted most of the policies articulated by President Nixon in his 1970 message to Congress.⁴⁶ While Congress tended to adopt pro-tribal sovereignty legislation during this period, the U.S. Supreme Court started in 1978 issuing decisions that have slowly constrained tribal sovereignty. For example, in 1978, the U.S. Supreme Court decided *Oliphant v. Suquamish Indian Tribe*,⁴⁷ which involved the ability of a tribal court to assert jurisdiction over a non-Indian who committed a crime within Indian country.⁴⁸ The U.S. Supreme Court held that the tribal court did not have jurisdiction over non-Indians committing crimes within Indian country.⁴⁹ Despite the Court's actions, however, tribal sovereignty persists to this day.⁵⁰

B. THE SCOPE OF INDIAN COUNTRY

With an understanding of the scope of tribal sovereignty in place, it is helpful to also understand what lands are included in the definition of "Indian country." "Indian country" is a legal term of art and it refers to:

- (a) all land within the limits of any Indian reservation under the jurisdiction of the United States Government, notwithstanding the issuance of any patent, and, including rights-of-way running through the reservation, (b) all dependent Indian communities within the borders of the United States whether within the original or subsequently acquired territory thereof, and whether within or without the limits of a state, and (c) all Indian allotments, the Indian titles to which have not been extinguished, including rights-of-way running through the same.⁵¹

For purposes of this Article, it is notable that the definition includes

44. See *Message from the President of the United States Transmitting Recommendations for Indian Policy*, H.R. Doc. No. 91-363, 91st Cong., 2d Sess. (1970).

45. See *id.*

46. See Richard J. Ansson, Jr., *State Taxation of Non-Indians Whom Do Business with Indian Tribes: Why Several Recent Ninth Circuit Holdings Reemphasize the Need for Indian Tribes to Enter into Taxation Compacts with Their Respective State*, 78 OR. L. REV. 501, 509 (1999).

47. 435 U.S. 191 (1978), *superseded by statute*, 25 U.S.C. § 1301, *as recognized in United States v. Lara*, 541 U.S. 193 (2004).

48. *Id.*

49. *Id.*

50. See COHEN'S HANDBOOK OF FEDERAL INDIAN LAW, *supra* note 20, at § 4.01[1][a].

51. 18 U.S.C. § 1151.

rights-of-way.⁵² As discussed below,⁵³ issues related to rights-of-way regularly arise within the context of energy development in Indian country. “Even land owned by non-Indians in fee simple is Indian country if it is located within the exterior boundaries of an Indian reservation.”⁵⁴

Although the scope of Indian country has been further defined over the years, the phrase “within the limits of an Indian reservation,” has led to litigation over the years to determine reservation boundaries. In 1984, the U.S. Supreme Court developed a three-part test to determine the scope of reservation boundaries.⁵⁵ The Court determined that Congress does have the ability to diminish the boundaries of a reservation, but its intent must be clear.⁵⁶ In determining Congress’ intent, courts should first look to the language of the congressional act.⁵⁷ If the language is ambiguous, then courts can look to contemporaneous legislative history and subsequent historical developments to determine if Congress intended to diminish reservation boundaries.⁵⁸ Absent clear language, legislative history or subsequent developments, courts should uphold the original boundaries.⁵⁹ The U.S. Supreme Court recently affirmed use of this test in its 2020 decision in *McGirt v. Oklahoma*.⁶⁰

C. Regulatory Control in Indian Country

With an understanding of tribal sovereignty and the scope of Indian country now in place, it is helpful to also understand how regulatory authority within Indian country differs from regulation outside of Indian country. Regarding environmental law and energy development specifically, tribes have the authority to enact environmental law affecting their territories under either their tribal inherent authority or under a federal delegation of authority. Today, tribes maintain those aspects of sovereignty that have not been removed by virtue of treaty, statute or “by implication as a necessary result of their dependent status.”⁶¹ Accordingly,

52. Heather J. Tanana & John C. Ruple, *Energy Development in Indian Country: Working Within the Realm of Indian Law and Moving Towards Collaboration*, 32 UTAH ENV’T. L. REV. 1, 9 (2012).

53. *Infra* Section IV.D.

54. Tanana & Ruple, *supra* note 52, at 9.

55. *Solem v. Bartlett*, 465 U.S. 463, 470–71 (1984).

56. *Id.* at 466–72.

57. *Id.*

58. *Id.*

59. *See id.* at 476–80.

60. 140 S. Ct. 2452, 2462–63 (2020).

61. *United States v. Wheeler*, 435 U.S. 313, 323 (1978) *superseded by statute*, 25 U.S.C. § 1301, *as recognized in United States v. Lara*, 541 U.S. 193 (2004).

any examination of tribal authority should start with the presumption that the tribe in question possesses sovereignty, unless the tribe has been divested of its sovereignty by the federal government.⁶² The Indian Commerce Clause grants the power to regulate commerce with Indian tribes to the federal government.⁶³ Accordingly, an examination of whether a tribe has been divested of its sovereignty often begins by looking to federal law. In sum, unless divested by the federal government, tribes possess authority over their members and territories by virtue of their inherent sovereignty.⁶⁴ This authority includes the ability to regulate through tribal environmental laws.⁶⁵

Despite inherent tribal sovereignty, jurisdictional uncertainty sometimes arises in relation to a tribe's authority over the actions of non-members and non-Indians within the tribe's territory. In the civil context, this is because tribes have been divested of their inherent sovereignty over non-citizens on non-Indian land unless certain conditions exist.⁶⁶ In *Montana v. United States*, the United States Supreme Court considered the extent of a tribe's inherent sovereignty over non-Indians.⁶⁷ Ultimately, because of implicit divestiture of the Nation's inherent sovereignty,⁶⁸ the Court determined that the Crow Nation did not have authority to regulate the hunting and fishing of non-Indians owning fee land⁶⁹ within the Crow Nation's reservation boundaries.⁷⁰ However, the Court acknowledged that, despite the implicit divestiture of tribal inherent sovereignty over

62. COHEN'S HANDBOOK OF FEDERAL INDIAN LAW, *supra* note 20, at § 4.01[1][a].

63. U.S. CONST. art. I, § 8, cl. 3.

64. *United States v. Mazurie*, 419 U.S. 544, 557 (1975).

65. See generally William H. Rodgers, Jr. & Elizabeth Burleson, *Environmental Law in Indian Country*, § 1:12 (Thomson West 2005).

66. See generally *id.* at § 2:7–8. Tribes' criminal jurisdiction is generally limited to Indians. See *Oliphant v. Suquamish Indian Tribe*, 435 U.S. 191, 212 (1978).

67. 450 U.S. 544, 547 (1981); see Rodgers, Jr. & Burleson, *supra* note 65, at § 2:7.

68. Rodgers, Jr. & Burleson, *supra* note 65, at § 2:7. See also Bruce Duthu, *Implicit Divestiture of Tribal Powers: Locating Legitimate Sources of Authority in Indian Country*, 19 AM. INDIAN L. REV. 353, 354–55, 384 (1994); Kevin Gover & James B. Cooney, *Cooperation Between Tribes and States in Protecting the Environment*, 10 NAT. RES. & ENV'T 35, 35 (Winter 1996) (“According to this theory, courts can rule that, in addition to having lost certain aspects of their original sovereignty through the express language of treaties and acts of Congress, tribes also may have been divested of aspects of sovereignty by implication of their dependent status.”).

69. Since *Montana*, the Supreme Court has also considered the ability of tribes to regulate the conduct of non-members and non-Indians on other types of lands. For example, in *Strate v. A-1 Contractors*, the Court held that the Indian tribe did not possess the inherent sovereignty to adjudicate a civil complaint arising from an accident between two non-Indians on a state highway within the tribe's reservation boundaries. See 520 U.S. 438, 453, 459 (1997). The *Strate* Court explained that “[a]s to nonmembers, we hold, a tribe's adjudicative jurisdiction does not exceed its legislative jurisdiction.” *Id.* at 453.

70. *Montana*, 450 U.S. at 564–65 (holding that the “exercise of tribal power beyond what is necessary to protect tribal self-government or to control internal relations is inconsistent with the dependent status of the tribes, and so cannot survive without express congressional delegation False”).

non-Indians on fee land within reservation boundaries, tribes may regulate the activities of such individuals under two circumstances. First, tribes may regulate the activities of individuals who have entered into “consensual relationships with the tribe or its members.”⁷¹ Second, a tribe retains the “inherent power to exercise civil authority over the conduct of non-Indians on fee lands within its reservation when that conduct threatens or has some direct effect on the political integrity, the economic security, or the health or welfare of the tribe.”⁷²

Notably, the *Montana* decision involved the actions of non-Indians living on non-Indian owned land within the tribe’s territory. It may therefore be argued that tribes have a greater interest in regulating the activities of non-members and non-Indians on tribally controlled land within the tribe’s territory. However, the United States Supreme Court’s decision in *Nevada v. Hicks* casts a shadow on this assumption.⁷³ In *Hicks*, the Supreme Court considered whether the Fallon Paiute-Shoshone Tribes had jurisdiction over Mr. Hicks’ civil claim against Nevada game wardens, in their individual capacities.⁷⁴ When searching Mr. Hicks’ on-reservation property, it was alleged that the Nevada game wardens violated certain tribal civil provisions (in addition to violating federal law).⁷⁵ In concluding that the tribal court did not have jurisdiction to hear the tribal-law based claims, the Court found that the *Montana* exceptions did not apply.⁷⁶ It may therefore be argued that the Court implicitly suggested in *Hicks* that *Montana* applied to the actions of non-members and non-Indians within Indian country regardless of the status of land where the activity occurred.

In sum, because of their inherent sovereignty, tribes generally have regulatory authority over their citizens within their physical territory. Tribes generally do not have inherent sovereignty and therefore lack jurisdiction over non-Indians acting on non-Indian land within tribal territory,⁷⁷ unless one of the two *Montana* exceptions applies. Tribes may have regulatory authority in such circumstances if the non-Indians or non-members in question have consented to tribal jurisdiction or if the non-Indian conduct “threatens or has some direct effect on the political

71. *Id.* at 565.

72. *Id.* at 566.

73. 533 U.S. 353 (2001).

74. *Id.* at 355.

75. *Id.* at 356–57.

76. *Id.* at 355–69, 374–75.

77. Although *Montana* involved the activities of non-Indians on non-Indian fee land, suggesting that the status of the land plays a role in the determination of jurisdiction, *Nevada v. Hicks* muddies the analysis of tribal jurisdiction. This is because the *Hicks* Court applied the *Montana* exceptions to a situation where the alleged wrongful activity occurred on property owned by a tribal member. *Id.*

integrity, the economic security, or the health or welfare of the tribe.”⁷⁸ Additionally, tribes may have authority over non-Indians through a federal delegation of authority. For example, several federal environmental statutes, such as the Clean Water Act, allow tribes to have authority similar to states under federal laws.⁷⁹ Through delegated authority, such as the TAS provisions of many federal environmental statutes, tribes may have jurisdictional authority over non-members and non-Indians.

III. THE ATTRACTIVENESS OF RENEWABLE ENERGY DEVELOPMENT IN INDIAN COUNTRY

With an understanding of tribal sovereignty, Indian country, and regulatory authority within Indian country established, the Article now turns to a discussion of why entities, such as tribes, non-tribal investors, and the federal government, may be interested in renewable energy development within Indian country. Studies increasingly show that Indian country may be uniquely positioned to develop alternative energy.⁸⁰ Indian country in general constitutes a significant portion of land in the United States.⁸¹ “The OIEED estimates that an additional 15 million acres of undeveloped traditional energy mineral resources and over 22 million acres of undeveloped renewable energy resources exist on individual

78. *Montana v. United States*, 450 U.S. 544, 566 (1981).

79. 33 U.S.C. § 1377(e). “TAS status under the CWA allows tribes to set water quality standards, issue NPDES permits and issue Section 404 permits.” Thomas, *Part Two*, *supra* note 5, at 9 (citation omitted).

80. *Indian Energy and Energy Efficiency: Hearing Before the Sen. Comm. on Indian Affs.*, 111th Cong. (2009) (statement of Hon. James Roan Gray, Chairman, Indian Country Renewable Energy Consortium), <https://www.govinfo.gov/content/pkg/CHRG-111shrg56321/html/CHRG-111shrg56321.htm> [<https://perma.cc/RXF3-CARD>] [hereinafter Statement of Hon. James Roan Gray] (“An intriguing twist of history has placed reservation lands in some of the most arid and windiest areas of the country. In addition, often by use of coercive tactics, transmission siting has often occurred on tribal lands. These two factors now present unrivaled opportunities to Tribes to finally develop some of the best class wind and solar resources not just in North America but the world.”); *see also* Kevin L. Shaw & Richard D. Deutsch, *Wind Power and Other Renewable Energy Projects: The New Wave of Power Project Development on Indian Lands*, ROCKY MTN. MIN. L. FOUND. INST. 9-1 (Nov. 2005) (citations omitted) (“With regard to wind power, Indian lands hold great potential for wind projects. Tribes in the southwest and on the northern plains have tremendous wind power resources. Opportunities are so abundant on reservations in New Mexico and North Dakota that, at one time or another, they have been referred to as ‘the Saudi Arabia of renewable energy’ and ‘the Saudi Arabia of wind energy,’ respectively. The top ten states for wind energy potential also happen to be states containing large blocks of Indian lands. They include North Dakota, Kansas, South Dakota, Montana, Wyoming, Minnesota and Iowa.”).

81. Shaw & Deutsch, *supra* note 80 (“Reservations are found in 33 states and cover approximately 3 percent of the land area in the contiguous 48 states. The size of Indian reservations in the U.S. ranges from a few acres to 24 that are larger than Rhode Island.”).

Indian and tribal lands.”⁸² Furthermore,

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.⁸³

And, to drive the point home, “renewable energy development is particularly well-suited for Indian Country since Indian Country ‘contains an estimated 5% of all renewable energy resources’ in the United States, including 14 billion MWh of solar resources and 1100 million MWh of wind resources.”⁸⁴ To date, despite this potential, however, “Indian energy resources are underdeveloped relative to surrounding non-Indian resources.”⁸⁵

The fact that renewable energy resources in Indian country are underdeveloped is not a product of lack of interest in such development. Outside of Indian country, there is a substantial interest in alternative energy development for a variety of reasons. In general, it appears that there are ample opportunities for domestic alternative energy development as:

[i]t has been estimated that . . . the capacity of new wind generation in

82. *Indian Energy and Energy Efficiency: Hearing Before the Sen. Comm. on Indian Affs.*, 111th Cong. (2009) (statement of Marcus Levings, Chairman, Three Affiliated Tribes of the Fort Berthold Reservation), <https://www.govinfo.gov/content/pkg/CHRG-111shrg56321/html/CHRG-111shrg56321.htm> [<https://perma.cc/RXF3-CARD>] [hereinafter Statement of Marcus Levings]. Chairman Levings went on to explain that “OIEED’s analysis finds that the potential remaining resources to be realized through new development on Indian lands reveal[s] the following: . . . Wind energy 535 billion kWh/year . . . Solar energy 17,600 billion kWh/year . . . Woody biomass [sic] 3 billion kWh/year . . . Hydroelectric 5.7 million kWh/year . . . Geothermal 21 million kWh/year.” *Id.* See also ENERGY INFO. ADMIN., U.S. DEP’T OF ENERGY, ENERGY CONSUMPTION AND RENEWABLE ENERGY DEV. POTENTIAL ON INDIAN LANDS 23–26 (April 2000), <https://www.eia.gov/renewable/archive/neaf0001.pdf> [<https://perma.cc/QZ7P-D5EV>] (including a list of Indian reservations with the highest potential for renewable energy projects).

83. Kronk, *supra* note 1, at 453 (quoting Tracey A. LeBeau, *The Green Road Ahead: Renewable Energy Takes a Stumble but is on the Right Path, Possibly Right Through Indian Country*, 56 FED. LAW. 38, 44 (Apr. 2009)).

84. Ravotti, *supra* note 11, at 292. See also REPORT TO THE CHAIRMAN, *supra* note 1, at 1–2 (“In addition, according to a 2013 Department of Energy (DOE) report, Indian lands in the contiguous 48 states have the technical potential to produce about 1.1 billion megawatt hours (MWh) of electricity for wind energy—3.4 percent of total U.S. technical potential. Indian lands also have the potential to produce about 14 billion MWh of solar energy—5.1 percent of total U.S. generation.”) (citations omitted). Although sources disagree about the exact amount of renewable energy potential in Indian country, it seems clear that there is an abundance of undeveloped potential within Indian country.

85. REPORT TO THE CHAIRMAN, *supra* note 1, at 2. This report goes on to explain that “Indian energy resources hold significant potential for future development.” *Id.* at 8.

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. According to some estimates, the solar industry will have nearly doubled installations of solar photovoltaic modules that same year.⁸⁶

In recognition of the increasing opportunities for renewable energy development, industry has increased production of materials necessary for such development, and costs overall have dropped.⁸⁷ As a result, “[t]he cost of generating electricity with wind is now less expensive than with natural gas.”⁸⁸ This may be because “[w]ind energy is the world’s fastest [sic] growing energy technology Investment in wind power could bring up to \$3 billion into the power generation sector and, by 2020 provide six percent of the nation’s electricity.”⁸⁹ Because of the growing interest in renewable energy development and its decreasing costs, third party investors are looking to invest in such renewable development.⁹⁰ “[T]here are promising signs that Congress understands the renewable energy development opportunities in Indian Country, and is willing to work with tribes to promote such development in ways that are mutually beneficial to both the tribes and the United States’ population as a whole.”⁹¹ Given substantial renewable resources exist in Indian country and there appears to be interest in developing these resources, the Article examines specific reasons why different entities may be interested in such development.

86. Kronk, *supra* note 1, at 453–54 (quoting Tracey A. LeBeau, *The Green Road Ahead: Renewable Energy Takes a Stumble but is on the Right Path, Possibly Right Through Indian Country*, 56-APR. FED. LAW. 38, 43 (2009)).

87. Tracey A. LeBeau, *The Green Road Ahead: Renewable Energy Takes a Stumble but is on the Right Path, Possibly Right Through Indian Country*, 56-Apr. FED. LAW. 38, 39 (2009) (“[P]roject 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.”).

88. Shaw & Deutsch, *supra* note 80.

89. *Id.* (citations omitted).

90. LeBeau, *supra* note 87, at 39–40 (“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.” (citation omitted)).

91. Ravotti, *supra* note 11, at 291.

A. Tribal Perspectives

There are a myriad of reasons why tribes may want to develop renewable energy resources. Some tribes may engage in renewable energy development to reduce the impact of climate change on the built environment and increase energy resiliency.⁹² Tribes may also be interested in renewable energy development in Indian country, as it presents a chance for economic diversification of the tribal economy. Overall, the development of energy resources in Indian country has proved lucrative for tribes.⁹³ Because of the uncertainty of the fossil fuel market, tribes may prefer to develop their renewable energy opportunities instead of fossil fuels – even though the latter are currently more lucrative.⁹⁴ Despite the lucrative nature of traditional energy development, however, such development has proved problematic in some cases as there have been challenges related to leasing, development and management decisions, protection of environmental and cultural resources, among others.⁹⁵ In fact, tribes are increasingly looking for opportunities to develop their renewable energy resources, which are cleaner and more sustainable.⁹⁶ As a result, the development of renewable energy projects in Indian country offers the potential for economic development in a manner that potentially avoids these challenges.

Many Native communities have sought to develop mechanisms for increasing and diversifying economic development.⁹⁷ A Harvard Project on American Indian Economic Development study concluded that there are three keys to successful development in Indian country: sovereignty,

92. Pilar M. Thomas, *Developing Energy Resources and Other Economic Projects on Tribal Lands*, 2016 WL 2989482, at *4 (2016) (“Tribes should be involved in these efforts so that they do not end up being ‘energy poverty islands’ in the middle of areas with abundant energy resources and energy resiliency.”) [hereinafter Thomas, *Developing Energy Resources*].

93. “According to Department of the Interior data, in fiscal year 2014, development of Indian energy resources provided over \$1 billion in revenue to tribes and individual Indian resource owners.” REPORT TO THE CHAIRMAN, *supra* note 1, at 2 (parenthetical omitted).

94. Ronald H. Rosenberg, *Diversifying America’s Energy Future: The Future of Renewable Wind Power*, 26 VA. ENV’T. L.J. 505, 505–07 (2008); *but cf.* *Energy Development Impacts on Indigenous Peoples*, United Nations Special Rapporteur Victoria Tauli-Corpuz for the Rights of Indigenous Peoples, U.N.M. SCH. OF L. NAT. RES. & ENV’T L. CLINIC 3–4 (Feb. 25, 2017) [hereinafter *Report to Victoria Tauli-Corpuz*] (explaining that although development of natural resources may be lucrative there are concerns that tribes are unable to obtain good terms on the royalties they receive).

95. *Report to Victoria Tauli-Corpuz*, *supra* note 94, at 4.

96. Maruca, *supra* note 5, at 396.

97. Stephen Cornell & Miriam Jorgensen, *The Nature and Components of Economic Development in Indian Country*, NAT’L CONG. OF AM. INDIANS POL’Y RSCH. CTR. 2–3 (May 15, 2007), http://udallcenter.arizona.edu/publications/sites/default/files/104_en.pdf [https://perma.cc/9USL-NKLA].

culture, and tribal institutions.⁹⁸ With regard to sovereignty, where Nations make their own decisions about what approaches to take and what resources to develop, they consistently out-perform outside decision-makers.⁹⁹ With regard to culture, Native culture is a resource that shores up the strength of government and has concrete impacts on bottom line results.¹⁰⁰ Finally, with regard to Native institutions, Native communities that have successfully engaged in economic development have done so by settling disputes fairly, separating functions of elected representation and business management, and implementing tribal policies that advance tribal strategic goals.¹⁰¹ The Harvard Project on American Indian Economic Development study therefore concluded that economic development projects undertaken in Indian country that take into consideration sovereignty, culture and tribal institutions are likely to be successful.¹⁰²

Potential opportunities for renewable energy projects in Indian country reflect well these keys to successful development.¹⁰³ By participating in the development of these programs, tribes would certainly be acting like sovereigns. In fact, “Indian tribes are ready for ‘nation building at home’ by investing, developing, facilitating, and participating in building the infrastructure required to support green energy.”¹⁰⁴ Additionally, renewable energy development in Indian country offers a new hope for some tribal communities, because “[w]ith Tribal communities economically hamstrung by inadequate infrastructure, no tax base and population growth outpacing infrastructure growth—energy and infrastructure development that will not just provide new revenue streams but also attract capital investments in manufacturing, new sustainable employment”¹⁰⁵ The Honorable Steve Herrera, a Southern Ute Indian Tribal Council Member, also indicated that Native Nations may be

98. Miriam Jorgensen & Jonathan B. Taylor, *What Determines Indian Economic Success? Evidence from Tribal and Individual Indian Enterprises*, MALCOLM WIENER CTR. FOR SOC. POL’Y 3–4 (June 2000), <https://hpaied.org/sites/default/files/publications/WhatDeterminesIndianEconomicSuccess.pdf> [https://perma.cc/XE3L-NNYG].

99. *Id.* at 3.

100. *Id.* at 3–4.

101. *Id.* at 4.

102. *Id.* at 2–3.

103. Consistent with the findings of the Harvard Project on American Indian Economic Development study, a Nation should ensure that adequate tribal institutions are in place before entering into any alternative energy development project.

104. LeBeau, *supra* note 87, at 38.

105. Statement of Hon. James Roan Gray, *supra* note 80; *see also* LeBeau, *supra* note 87, at 42–43 (“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.”).

interested in taking greater control over renewable energy development because “[o]ne persistent theme reflected in the last thirty years of our tribe’s history is the notion that ultimately we are the best protectors of our own resources and the best stewards of our own destiny”¹⁰⁶ Renewable energy development may also be attractive to tribes because it must be developed where it is generated, and “the tribe has greater control over the resource production, and may receive a greater immediate benefit from renewable resource generation since the energy produced therefrom can be consumed on the reservation.”¹⁰⁷

Even if a tribe should determine that a large-scale commercial development of renewable energy resources is not feasible because of the obstacles discussed in this Article below, it may be advantageous for the tribe to consider alternative energy development to support the energy needs of its own people,¹⁰⁸ such as the Blackfeet Nation did.¹⁰⁹ Small-scale wind projects, for example, can be relatively affordable for most tribes.¹¹⁰ While not presenting the same financial incentives of the large-scale alternative energy projects, these smaller renewable energy projects still offer tribes an opportunity to provide free or affordable energy for their citizens, and also provide some employment opportunities.¹¹¹ Additionally, small-scale renewable energy projects may avoid the extensive environmental impact assessment requirements under the National Environmental Policy Act often required of larger projects because of their more significant impact or potential impact on the environment.¹¹²

106. *Indian Energy and Energy Efficiency: Hearing Before the Sen. Comm. on Indian Affs.*, 111th Cong. (2009) (statement of Hon. Steve Herrera, Council Member, Southern Ute Indian Tribal), <https://www.govinfo.gov/content/pkg/CHRG-111shrg56321/html/CHRG-111shrg56321.htm> [<https://perma.cc/69DJ-TPGE>]. See also Statement of Marcus Levings, *supra* note 82 (“American Indian energy resources hold enormous potential to create tens of thousands of . . . good-paying jobs, generate substantial revenue for the tribal owners, and aid in the development of tribal economies An often-overlooked aspect of Indian energy is that it helps satisfy the American economy’s need for a reliable energy supply.”).

107. Ravotti, *supra* note 11, at 281 (citation omitted).

108. These smaller projects can provide a great deal of energy security to tribes and their citizens. “The increased risk of energy insecurity, however, is often overlooked when discussing Indian social issues, even though access to energy is critical to human health and wellbeing” Ravotti, *supra* note 11, at 282 (citation omitted); Maruca, *supra* note 5, at 402 (explaining that small scale energy projects can help tribes to combat energy poverty).

109. See *infra* Section V for discussion on the Blackfeet Nation’s alternative energy development project.

110. Shaw & Deutsch, *supra* note 80 (“Unlike the mammoth large turbines, these smaller turbines may have a 50-foot rotor mounted on a 120-foot tall tower. Costs may range from a few thousand dollars for the very small units, to up to \$80,000.”).

111. See *infra* Section V.

112. Statement of Marcus Levings, *supra* note 82 (“Reliable information suggests that the vast

Tribal renewable energy development within Indian country may also privilege tribal sovereignty as tribes may find themselves in the position of expanding their own tribal law to help assist in the development of the renewable energy source.¹¹³ Creating tribal energy laws and policies or “legal infrastructure” helps ensure the success of renewable energy development.¹¹⁴ For example, the Navajo Nation requires permitting under certain circumstances within its territory.¹¹⁵ Broadly, the development of tribal-specific laws benefits tribes because of the ability to regulate in the best interest of the Tribe and to incorporate provisions, such as a requirement that developers hire and train tribal members,¹¹⁶ that benefit citizens of the tribe.¹¹⁷ “The exercise of tribal civil and regulatory authority is a positive affirmation of a Tribe’s sovereign right to protect its own lands, people, and interests.”¹¹⁸ More specifically, the development of tribal laws and regulations impacting renewable energy development offer tribes the opportunity to incorporate their environmental ethics into the tribal law, as many tribes across the country have done.¹¹⁹

“Environmental policy is the product of the combined influences of environmental ethics, science, and economics.”¹²⁰ Accordingly, the environmental ethics employed by the entity developing such policy plays a crucial role in its development; there is a strong interplay between environmental policy and the ethics underlying its creation. As Professor

majority of potential renewable energy projects in Native communities are modest in size and more akin to the community development scale than the commercial utility scale. As a result, most of these projects might only require an environmental assessment and not a full-blown environmental impact statement under the National Environmental Policy Act (NEPA).”)

113. *Report to Victoria Tauli-Corpus*, *supra* note 94, at 9 (“The disposition of resources under the control of the tribe offers the opportunity to draft and enforce legislation and regulations to the benefit of the tribe.”).

114. Thomas, *Developing Energy Resources*, *supra* note 92, at *9.

115. Gregor Allen MacGregor, *When the Navajo Generating Station Closes, Where Does the Water Go?*, 31 *COLO. NAT. RES., ENERGY & ENV’T L. REV.* 289, 332 (2020).

116. *Report to Victoria Tauli-Corpus*, *supra* note 94, at 11 (explaining that energy development in Indian country has a history of providing valuable employment opportunities for tribal citizens).

117. *Id.* at 10. “A positive aspect of energy production in Indian Country is tribal regulation. A Tribe’s exercise of civil and regulatory jurisdiction on Indian lands is an exercise of tribal sovereignty. The ability to regulate specific activities through the enactment of statutes, the promulgation of regulations, licensing, permitting, monitoring, and enforcement is a necessarily inherent feature of any sovereign governmental entity. Regulation helps the Tribe ensure that the best interests of its people are considered and protected. Also, a vibrant regulatory scheme established in tribal law enables a Tribe to commit reliably to long term government and community planning, through methods such as zoning. By asserting its civil and regulatory authority, a Tribe expresses an affirmation of its jurisdiction and clarifies any uncertainties by filling jurisdictional voids.” *Id.* at 12 (citations omitted).

118. *Id.* at 13.

119. See Elizabeth Ann Kronk Warner, *Examining Tribal Environmental Law*, 39 *COLUM. J. ENV’T L.* 42, 46 (2014).

120. Rebecca Tsosie, *Tribal Environmental Policy in an Era of Self-Determination: The Role of Ethics, Economics, and Traditional Ecological Knowledge*, 21 *VT. L. REV.* 225, 226 (1996).

Rebecca Tsosie explained:

“[E]nvironmental ethics” . . . helps us analyze the moral relations between human beings and the natural environment and forms a context in which to understand our system of environmental laws. Systems of environmental ethics are comprised of values, which underlie judgments about what is “good” – either morally or materially – and norms, which are designed to place values into operation at the social level by making judgments about certain conduct.¹²¹

In general, development and incorporation of environmental ethics into environmental policy-making constitutes an expression of tribal self-determination.¹²² Such expression of self-determination therefore perpetuates tribal sovereignty. Sovereignty is important to Indian tribes because its existence allows tribes to enact laws and be governed by them.¹²³ The development and enactment of laws are fundamental expressions of sovereignty.¹²⁴ Environmental laws and ethics may be particularly important for tribes with cultural and spiritual connections to

121. *Id.* at 243 (citations omitted).

122. *Id.* at 299–300. Admittedly, however, departure of traditional environmental ethics may also be an expression of tribal self-determination, as tribes should not be constrained to one static conception of environmental ethics, but rather should be allowed to evolve and adapt as any other governments are allowed to do. *Id.* at 300. Professor Tsosie goes on to explain that “tribal sovereignty will not always result in adherence to traditional norms of economic or environmental conduct.” *Id.* at 311.

123. *See generally* Santa Clara Pueblo v. Martinez, 436 U.S. 49 (1978) (“Although no longer ‘possessed of the full attributes of sovereignty,’ [Indian tribes] ‘remain a separate people, with the power of regulating their internal and social relations.’” (quoting United States v. Kagama, 118 U.S. 375, 381–82 (1886))); Williams v. Lee, 358 U.S. 217, 223 (1959) (prohibiting “the exercise of state jurisdiction” over the controversy at issue because it “would undermine the authority of the tribal courts over Reservation affairs and hence would infringe on the right the Indians to govern themselves”).

124. Tribal laws incorporate several different types of law, including treaties, constitutions, customary and traditional laws, legislative enactments, and administrative rulemaking. For a general discussion of the various categories of tribal laws, see generally MATTHEW L.M. FLETCHER, AMERICAN INDIAN TRIBAL LAW (2011); JUSTIN B. RICHLAND & SARAH DEER, INTRODUCTION TO TRIBAL LEGAL STUDIES (2d ed. 2010). Different types of law may express tribal sovereignty in different ways. For example, tribal constitutions establish basic tribal powers and governmental structure. COHEN’S HANDBOOK OF FEDERAL INDIAN LAW, *supra* note 20, at § 4.05[3]. Some tribal constitutions also explicitly reference the inherent sovereignty of the tribe. *See, e.g.*, ROSEBUD SIOUX TRIBE CONST. art. IV, § 3, <https://narf.org/nill/constitutions/rosebudconst/constitution.pdf> [<https://perma.cc/C2AL-4HST>]. Tribal customary law may also be developed to recognize the tribe’s important cultural ties to the past and the significance of tribal culture in the future. *See generally* Robert D. Cooter & Wolfgang Fikentscher, *Indian Common Law: The Role of Custom in American Indian Tribal Courts*, 46 AM. J. COMPAR. L. 287, 287 (1998) (comparing “distinctively Indian social norms” across multiple tribes’ courts). Overall, “[i]n recent decades, the scope of tribal law has been widening to meet the needs of tribal self-government and contemporary self-determination. This explosion in both tribal common law decision making, and positive law reflects the growing demand on Indian nations to address a wide array of matters” COHEN’S HANDBOOK ON FEDERAL INDIAN LAW 2012, *supra* note 20, at § 4.05[1].

their environment and land.¹²⁵ However, as Professor Christine Zuni Cruz notes, “not every sovereign act undertaken by an indigenous nation necessarily promotes [its] sovereignty Adoption of western law can create a gap between the adopted law and the people In this respect, an Indian nation’s government can . . . alienat[e] . . . its own people.”¹²⁶ Accordingly, just like any other nation state, a tribe should develop its environmental law consistent with its existing environmental ethics. “[U]ltimately, an indigenous nation’s sovereignty is strengthened if its law is based upon its own internalized values and norms.”¹²⁷ Although there are instances where application of federal law and other cultural influences have incapacitated indigenous environmental systems and ethics,¹²⁸ the capacity for innovation that departs from American legal norms and for identifying tribal or indigenous environmental ethics persists.

Discussion and development of tribal environmental ethics benefits tribes through this promotion of self-determination and sovereignty. Development and articulation of tribal environmental ethics constitutes an expression of tribal self-determination. Moreover, by determining for themselves what constitutes their community environmental ethics, tribes can avoid buying ethical paradigms “sold” to them by non-Natives: paradigms designed to benefit those outside of tribal communities, rather than tribes or individual Indians.¹²⁹

125. For a general discussion of the close spiritual and cultural connection that many tribes and individual Indians have with their tribal environments, see TRIBES, LAND, AND THE ENVIRONMENT (Sarah Krakoff & Ezra Rosser eds., 2012).

126. Christine Zuni Cruz, *Tribal Law as Indigenous Social Reality and Separate Consciousness: [Re]Incorporating Customs and Traditions into Tribal Law*, 1 TRIBAL L.J. 1, 3–4 (2000) (citations omitted), <https://lawschool.unm.edu/tlj/common/docs/volumes/vol-1-zuni-cruz-christine-tribal-law-as-indigenous-social-reality-and-separate-consciousness-reincorporating-customs-and-traditions-into-tribal-law.pdf> [<https://perma.cc/9EM5-QVAP>].

127. *Id.* at 4; see also Wenona T. Singel, *Cultural Sovereignty and Transplanted Law: Tensions in Indigenous Self-Rule*, 15 KAN. J.L. & PUB. POL’Y 357, 358–59 (2006) (discussing common conflicts between tribal “incorpor[ation] [of] non-Indian law” and “tribes’ efforts to represent their histories and existence using their own terms.”).

128. Tsosie, *supra* note 120, at 293. Also, because application of tribal environmental norms to non-members of a specific tribe may be controversial, tribal environmental ethics may not be given their fullest expression. *Id.* at 294.

129. Professor Huffman cautions Indian people against accepting the noble “in harmony with the environment” role that environmentalists want them to play. James L. Huffman, *An Exploratory Essay on Native Americans and Environmentalism*, 63 U. COLO. L. REV. 901, 901 (1992). By returning to traditional “preindustrial” economies and refusing to engage in other types of economic development, as environmentalists desire, Indian nations will find their often squalid circumstances worse rather than better. *Id.* at 909. “While white Americans pursue harmony with mother nature from their comfortable offices on the Potomac and their high tech kayaks on the Colorado, Native Americans will struggle to feed their children and make sense of a culture not of nature but of alcohol, poverty and desperation.” *Id.* at 903. According to Professor Huffman, “[t]his imagined Native American philosophy will neither serve the Indian nor provide a realistic path to a livable environment in the

Further, reconsideration of the environmental ethic driving American environmental policy also potentially benefits Indians and tribes, as the existing “American environmental policy has often failed to recognize the equity interests of so-called ‘minority’ populations such as American Indians and Hispanics.”¹³⁰

Beyond the generalized motivation of self-determination and sovereignty shared at some level by all governments, tribal governments may be more specifically motivated by a close connection to their land and environment. Although other communities may have a special relationship with their environments, such special relationships are not unusual for many tribes and individual Indians.¹³¹ Such special relationships in turn can lead to the development of robust ethical paradigms for many tribal communities. For example, the land and its environment can have special meaning for individual Indians. As Professor Rebecca Tsosie explains, “American Indian tribal religions . . . are located ‘spatially,’ often around the natural features of a sacred universe.”¹³² “Thus, while indigenous people often do not care *when* the particular event of significance in their religious tradition occurred, they care very much about *where* it occurred.”¹³³

In addition to generalized interest in tribal sovereignty and the promotion of tribal environmental ethics, renewable energy development may be of increasing interest to tribes because recent federal legislation, such as the Helping Expedite and Advance Responsible Tribal Home

21st Century.” *Id.* Huffman likens the environmental movement to many other assimilationist movements in American history. *Id.* at 910. “Instead of the federal government trying to assimilate the Indians, however, the environmentalists want to set the policy agenda and ‘sell’ it to Indians, arguing that it coincides with traditional Indian values.” Tsosie, *supra* note 120, at 325 (citing Huffman, *supra*, at 902–03).

130. Tsosie, *supra* note 120, at 264. Professor Tsosie goes on to point out that such environmental injustice spurred a movement in reaction to environmental racism, or the present-day environmental justice movement. *Id.* at 264–65.

131. “Land is important for several reasons: (1) it provides subsistence for people; (2) it is the source of spiritual origins and creation for tribal people; (3) it continues to be a spiritual landscape; (4) it is a sacred place upon which generations and generations of tribal people have lived and practiced their ceremonies and (5) land is irreplaceable, and tribal people are unlikely to relocate from their ancestral lands.” *Report to Victoria Tauli-Corpuz*, *supra* note 94, at 15.

132. Tsosie, *supra* note 120, at 282.

133. Tsosie, *supra* note 120, at 282–83 (emphasis in the original). Professor Tsosie goes on to explain that “[u]nder the Native American perception of reality, which is ‘bound up in spatial references,’ specific natural areas are imbued with complex significance. Thus, a tribe may speak of its ‘origin place’ – such as a river, mountain, plateau, or valley – as a central and defining feature of the tribal religion. The tribe may also depend on a number of ‘sacred’ places for practice of religious activities. These spatial references orient the people and place them within the land; they give a sense of history, rootedness, and belonging.” *Id.* at 283 (citations omitted). She ultimately concludes that “[t]he connections of the Indian people to their reservation lands are deeply-rooted and complex. Tribal governments clearly perceive that the future of the people is linked to the land; land is not fungible for Indian people, nor is it merely of instrumental value.” *Id.* at 331–32 (citation omitted).

Ownership Act of 2012 (HEARTH Act), may help to remove some significant barriers to such development. The HEARTH Act amends the Indian Long-Term Leasing Act of 1955 by allowing tribes to approve leases for enumerated purposes without prior approval of the Secretary of the Interior, assuming “the lease is executed under the tribal regulations approved by the Secretary” under the terms of the Act.¹³⁴ In terms of leases for business and agricultural purposes (it is assumed that leases for renewable energy would fall under business leases),¹³⁵ the tribally-approved lease may not exceed 25 years “except that any such lease may include an option to renew for up to 2 additional terms, each of which may not exceed 25 years.”¹³⁶ Before the Indian Long-Term Leasing Act of 1955 was amended by the HEARTH Act, individual tribes, with a few notable exceptions such as the Navajo Nation and Tulalip Tribe, would have to get approval from the Secretary of the Interior for leases of tribal lands.¹³⁷ Federally recognized tribes interested in taking advantage of the HEARTH Act must submit for approval to the Secretary of the Interior tribal leasing regulations that include numerous provisions enumerated in the HEARTH Act.¹³⁸ If the Secretary of the Interior determines that the tribal leasing regulations meet the enumerated requirements of the HEARTH Act, the Secretary must approve the regulations.¹³⁹ Following Secretarial approval, the tribe may move forward with approving leases of tribal lands under the approved leasing regulations. The HEARTH Act waives the federal government’s liability for leases approved under these tribal regulations.¹⁴⁰

Furthermore, tribes taking ownership over development within their territories allows for them to protect cultural resources.¹⁴¹ “For tribes, and

134. Helping Expedite and Advance Responsible Tribal Home Ownership Act of 2012 (HEARTH Act of 2012), Pub. L. No. 112-151, § 2, 126 Stat. 1150, 1151 (2012).

135. The HEARTH Act does not specifically speak to alternative and renewable energy development, and, therefore, there may be some ambiguity as to whether it applies in this context. See generally Judith V. Royster, *Tribal Energy Development: Renewables and the Problem of the Current Statutory Structures*, 31 STAN. ENV’T L.J. 91, 124 (2012). It is a reasonable assumption that the HEARTH Act does apply. First, the language used in the HEARTH Act (i.e. “business”) is sufficiently broad enough to cover alternative and renewable energy development. HEARTH Act § 2. Second, as explained below, Congress specifically contemplated the use of the HEARTH Act to promote such energy development in Indian country.

136. HEARTH Act § 2(h)(1)(A).

137. 25 U.S.C. § 415.

138. HEARTH Act § 2(h)(3).

139. *Id.*

140. *Id.* § 2(h)(7).

141. “There is no overarching definition of ‘cultural resources’ under federal law. Very broadly, cultural resources are the tangible and intangible things that represent, give meaning to, or are part of a community’s cultural identity, expression, and beliefs. For example, art, stories, songs and music,

other indigenous people, cultural resources are often intimately associated with, tied to, or are, lands.”¹⁴² Accordingly, any type of development on tribal lands, including renewable energy development, has the potential to negatively impact cultural sources.¹⁴³ In fact, it is not at all uncommon for cultural resources to be threatened by more traditional energy development.¹⁴⁴ There are several examples of tribes opposing various renewable energy projects across the country – all because the proposed projects threatened tribal cultural resources.¹⁴⁵ The federal laws that can potentially apply to tribal cultural resources do not mandate protection,¹⁴⁶ and so, by moving renewable energy development projects onto tribal lands and under tribal regulatory authority, tribes have the capacity to do what the federal government has failed to do – enact tribal laws that protect valuable cultural resources.

On the whole, “[t]ribal autonomy in leasing, and the lack of mineral involvement in renewable projects, dramatically reduces the forty-nine bureaucratic steps necessary to develop traditional energy projects on tribal lands.”¹⁴⁷ Additionally, tribes may find the possibility of developing renewable energy projects attractive, as such projects may result in increased job opportunities.¹⁴⁸

B. Non-tribal Perspectives: Third-party Investors and the Federal Government

The reasons for tribal interest in renewable energy development within Indian country are plentiful. But tribes are not the only entities that may find renewable energy development in Indian country attractive. Non-tribal third-party investors and even the federal government may have reason to promote such development as well, as discussed below.

dances, food, clothing and regalia, ceremonies, and significant places are examples of cultural resources.” Furlong, *supra* note 3, at 2. Additionally, experts working in the field of renewable energy development in Indian country cited the role of culture as being important to the development of such projects. JONES & NECEFER, *supra* note 6, at 17.

142. Furlong, *supra* note 3, at 2.

143. *Id.* at 10 (“While often less public than fights over non-renewable energy development, tribes have for decades opposed renewable energy development projects that threaten their cultural resources. Perhaps the most high-profile example is the Wampanoag tribes’ opposition to the Cape Wind Energy Project – an offshore wind farm in Nantucket Sound, off the coast of Massachusetts.”).

144. *Id.* at 2.

145. *Id.* at 10–12.

146. *Id.* at 13.

147. MacGregor, *supra* note 115, at 338 (citing to Elizabeth Ann Kronk Warner, *Tribal Energy Development under the HEARTH Act: An Independently Rational, but Collectively Deficient Option*, 55 ARIZ. L. REV. 1031, 1046, 1048 (2013)).

148. *Id.* at 350.

i. Third-party Investors

There are several reasons why non-tribal third-party investors may be interested in developing renewable energy projects within Indian country. First, as opposed to other governments, tribal governments may be preferable to work with given the ease of access to most tribal governing bodies.¹⁴⁹ “In other words, tribal councils make the rules, which benefits all parties when it comes to developing wind projects and avoiding the complexity and delay often attendant to the bureaucracy of federal guidelines and procedure.”¹⁵⁰ Moreover, the less intrusive the project, the less likelihood that other entities outside of the tribal council and third party investor would become involved in the project. Also, the improved stability of tribal judiciaries can improve investor confidence in a fair resolution of matters should conflicts associated with the project arise.¹⁵¹

149. Dean B. Suagee, *Going “Code Green” in Indian Country*, 23 NAT. RES. & ENV’T 55 (Spring 2009) (“In our federal system, tribal governments are conceptually comparable to states, in that they exercise sovereignty that is distinct from the federal government. Tribes are generally not subject to the lawmaking authority of the states, and so in Indian country, the kinds of laws that are typically enacted by states, or by local governments acting pursuant to state sovereignty, may be enacted by tribal governments.”).

150. Shaw & Deutsch, *supra* note 80.

151. Tribal courts have made significant strides in their development over the past several decades. For example, the National Tribal Justice Resource Center was started on September 1, 2000 to assist in the development of tribal courts. *See generally* NAT’L TRIBAL JUST. RES. CTR., <http://www.tribalresourcecenter.org/index.htm> [<https://perma.cc/AE6D-RRZV>] (last visited Mar. 9, 2021). The National Tribal Justice Resource Center provides substantial assistance toward the development of tribal courts, including providing a helpline and assistance in running a tribal court. *Id.* Numerous tribes and tribal judges have taken advantage of the resources provided by the National Tribal Justice Resource Center and numerous other training opportunities. *Id.*; Melissa Tatum, *Tribal Courts: The Battle to Earn Respect Without Sacrificing Culture and Tradition*, in HARMONIZING LAW IN AN ERA OF GLOBALIZATION: CONVERGENCE, DIVERGENCE & RESISTANCE 88 (Larry Cata Backer ed., 2007) (“More and more . . . tribal judges receive some type of formal legal training, even if that is not an actual law degree. A wealth of training is available to tribal judges from a variety of sources . . . Most tribes will send their judges to a wide variety of conferences to receive training on everything from general judicial skills to specialized topics such as issuing and enforcing protection orders.”).

Furthermore, tribal courts have developed in a way that significantly resembles Anglo court systems. Tribal judges have become increasingly educated in Anglo legal traditions, as many tribal judges are either lawyers or have attended educational seminars and classes through organizations such as the National Judicial College or the National Indian Justice Center. *See generally* Charles Wilkinson, *Indian Nations and the Federal Government: What will Justice Require in the Future? Claims Against the Sovereign 20th Judicial Conference of the United States Court of Federal Claims*, 17 FED. CIR. BAR J. 235, 237, 238 (2008) (“Tribal judges regularly take courses at the judicial colleges . . .”). For example, both the tribal courts for the Little Traverse Bay Band of Odawa Indians (LTBB) and Sault Ste. Marie Tribe of Chippewa Indians, both of Michigan, employ a substantial number of attorney judges, and the non-attorney judges for these tribes are strongly encouraged to attend judicial training. Many third-party investors may “fear” supposed uneducated judges, as there may be a concern that these judges are biased against non-Indian parties. However, research demonstrates that tribal court

Even more specific than supporting renewable energy development in Indian country, non-tribal third-party investors may also wish to support development that is done in a way that centers tribal sovereignty for a couple of reasons. First, as mentioned above, development that is accomplished in a way that promotes tribal sovereignty and self-determination has an increased likelihood of success. Additionally, by fully engaging with and informing a tribal development partner, non-tribal third-party developers are much less likely to encounter significant obstacles from the tribe to such development.¹⁵²

There may also be interest in the development of renewable energy projects within Indian country from outside parties because many states now have Renewable Portfolio Standards (RPSs). These are state programs that encourage or require utilities operating within the state to obtain a certain amount of energy from renewable sources.¹⁵³ Given the wealth of renewable energy sources in Indian country, it therefore makes sense that non-tribal third-party investors may look to tribes as territories to develop renewable projects to meet RPS standards.

ii. The Federal Government¹⁵⁴

Promoting renewable energy development in Indian country that centers tribal sovereignty may be attractive to the federal government as well as tribes and non-tribal investors, as such development would be consistent with the federal policy of tribal self-determination.¹⁵⁵

judges are typically not biased. Nell Jessup Newton, *Tribal Court Praxis: One Year in the Life of Twenty Indian Tribal Courts*, 22 AM. INDIAN L. REV. 285, 323 (1998) (“The most controversial issue surrounding tribal courts involves the exercise of jurisdiction over non-Indians. The sampled cases indicate that the assumption of tribal court bias against non-Indians is simply not warranted.”). Such findings are logical. It would be counter to tribal interests related to economic development and external legitimacy for tribal judges to exhibit bias against non-Indian parties.

152. Troy A. Eid, *Beyond Dakota Access Pipeline: Energy Development and the Imperative for Meaningful Tribal Consultation*, 95 DENV. L. REV. 593, 604 (2018).

153. Meredith Wingate, Jan Hamrin & Lars Kvale, *Fostering Renewable Electricity Markets in North America*, COMM’N FOR ENV’T COOP. 11–12 (2007), <https://www.conservationgateway.org/Documents/Fostering-RE-MarketsinNA-en.pdf> [<https://perma.cc/CL5L-KX7G>].

154. The focus is on the federal government, as states generally do not have much authority over renewable energy projects developed within Indian country. Yet “[w]hile states don’t typically have jurisdictional or regulatory authority over energy development on tribal lands, projects on Indian lands may be impacted by state and local policies, laws, and regulations. Energy markets are local. That is, they are regulated at the state level, through state law and regulatory authorities.” Thomas, *Part Two*, *supra* note 5, at 8.

155. For example, the Office of Indian Energy director Kevin R. Frost recently indicated that the Department of Energy selected certain renewable energy projects in Indian country from funding that “are consistent with the principles of tribal sovereignty and self-determination” Zak Podmore, *Ute Mountain Ute Tribe Wins Energy Grant for Solar Project in Utah*, SALT LAKE TRIB. (May 19, 2020, 4:32 AM), <https://www.sltrib.com/news/2020/05/19/ute-mountain-ute-tribe/> [<https://perma.cc/YHB2-4G7Q>].

“According to Interior’s Secretarial Order 3335, among the guiding principles of the trust relationship are supporting tribal sovereignty and the right of Indian tribes to make important decisions about their own best interests, protecting tribal resources, and practicing responsiveness of timeliness.”¹⁵⁶ In fact, the federal government has been promoting renewable energy development in Indian country for decades.¹⁵⁷ The federal policy of tribal self-determination suggests that the federal government should aid in the development of renewable energy in Indian country that centers tribal sovereignty.¹⁵⁸ Such development is not only consistent with the federal policy of self-determination, but may also be seen as a “mechanism for self-preservation.”¹⁵⁹

“Federal policy calls for providing enhanced self-determination and economic development opportunities for Indian tribes by promoting tribal oversight and management of energy resource development on tribal lands.”¹⁶⁰ Since President Nixon first ushered in the tribal self-determination era, the federal government has promoted a policy of advancing tribal sovereignty and strengthening tribal institutions.¹⁶¹ As evidence of this federal policy of tribal self-determination, “Kevin Frost, director of the OIE [Office of Indian Energy], said his staff is working to build the energy independence of tribes while understanding and respecting their sovereignty.”¹⁶²

Despite potential federal support for renewable energy development in Indian country, however, some stakeholders believe that the federal government is not managing these projects in a way that prioritizes tribal priorities and needs.¹⁶³ There is evidence to suggest that the federal government, and specifically the Bureau of Indian Affairs (BIA), has not done a good job of stewarding renewable energy development in Indian

156. REPORT TO THE CHAIRMAN, *supra* note 1, at 5.

157. Thomas, *Developing Energy Resources*, *supra* note 92, at *3. Ms. Thomas goes on to describe numerous federal programs designed to promote energy development within Indian country. *Id.* at *5.

158. Maruca, *supra* note 5, at 416.

159. *Id.* at 417.

160. REPORT TO THE CHAIRMAN, *supra* note 1, at 36.

161. See Maruca, *supra* note 5, at 416–17.

162. Emily Hayes, *Efforts Underway to Bolster Tribes’ Energy Independence*, THE DURANGO HERALD (Mar. 9, 2020, 7:46 PM), <https://durangoherald.com/articles/317585> [<https://perma.cc/GR2T-G5B5>].

163. REPORT TO THE CHAIRMAN, *supra* note 1, at 25 (“[D]evelopment is generally not managed according to tribal priorities and does not reflect that Indian lands are intended for the use and benefit of Indian tribes and their members. Rather, some stakeholders said they believe that the applicability of some of these laws results in Indian lands being managed according to priorities generally associated with public lands and that review processes and requirements associated with the acts can hinder development.” (citations omitted)).

country.

A variety of factors, including shortcomings in BIA's management of Indian energy development, have hindered development of Indian energy resources In particular, BIA does not have comprehensive data to identify ownership and resources available for development, does not have a documented process or data to track and monitor its review and response times, and some offices do not have the skills or adequate staff resources to effectively review energy-related documents.¹⁶⁴

One of the notable obstacles presented by the BIA is its response time to requests to proposed renewable energy projects.¹⁶⁵ "For example, in 2011, the President for the Rosebud Sioux Tribe in South Dakota, reported that it took 18 months for BIA to review a wind lease."¹⁶⁶ Such delays can have the effect of halting and even ending renewable energy development agreements.¹⁶⁷

IV. OBSTACLES TO RENEWABLE ENERGY DEVELOPMENT IN INDIAN COUNTRY¹⁶⁸

Interest in renewable energy development within Indian country, however, is not enough. Even though some tribes have successfully developed renewable energy projects, obstacles to efficient development of these projects remain.

There is tremendous potential for renewable energy development in Indian Country. We also know the present reality: actual projects have been slow to materialize. This is due to a variety of obstacles ranging from overly complex and burdensome lease approval processes to

164. *Id.* at 18.

165. *Id.* at 21 ("A few stakeholders we interviewed and some literature we reviewed identified that BIA's review and approval process can be lengthy and increase development costs and project development times, resulting in missed development opportunities, lost revenue, and jeopardized viability of projects.")

166. *Id.* at 21. "In yet another example, BIA took more than 3 years to review and approve a lease for a proposed wind project and, according to a tribal official, the lease was only reviewed and approved after multiple calls and letters from the tribe to BIA headquarters." *Id.* at 22.

167. *Id.* at 21–22. "Long review times can contribute to uncertainty about the continued viability of the project because data used to support the economic feasibility and environmental impact of the project can become too old to accurately reflect current conditions." *Id.* at 22.

168. This Part focuses on some of the most significant obstacles to effective renewable energy development in Indian country, but it is also interesting to note what are not considered significant barriers—"non-tribal governments and public opinion," "tribal sovereignty," "community vision and stakeholder buy-in and cultural acceptance," "planning and project development," "customer[s]," "regulation, incentives, and energy market," and "partnerships." JONES & NECEFER, *supra* note 6, at 12 (citations omitted). The fact that "tribal sovereignty" is second on the list of things that are not significant obstacles is consistent with the Harvard study's findings that strong tribal sovereignty helps ensure successful project development. *Id.*

difficult transmission access and ill-fitting financial incentives.¹⁶⁹

Notably, many of the problems described below come from the fact that there is no uniform energy policy in the United States as generally applicable to renewable energy development nor specifically related to renewable energy development in Indian country.¹⁷⁰

Although states would likely have some authority over the project if it is meant to be a transboundary project,¹⁷¹ “Congress and the [U.S.] Supreme Court seem to be in agreement that state authority is inadequate to provide a stable regulatory regime in the areas of energy law and Indian law.”¹⁷² Also, tribes have been able to negotiate with states in a way that does not preclude development of renewable energy projects in Indian country.¹⁷³ Accordingly, this Article does not focus much attention on obstacles to renewable energy development in Indian country presented by states and state regulation.¹⁷⁴

Broadly, there are federal regulations and procedures that apply generally in Indian country, but this Part will focus on those provisions specific to Indian country.¹⁷⁵ Also, the problem of double taxation—taxation by both the tribal government and the state—is sometimes mentioned as an obstacle to effective energy development in Indian country.¹⁷⁶ Double taxation, however, is not discussed below, as it is possible to use tax compacts as a way to avoid such double taxation.¹⁷⁷ This Part therefore discusses some of the major obstacles threatening energy development for all tribes across the lower 48 in the United States.

A. *Lack of Adequate Financial and Policy Incentives*

One substantial barrier to effective development of renewable energy resources within Indian country is the lack of effective financial

169. Statement of Hon. James Roan Gray, *supra* note 80.

170. Ravotti, *supra* note 11, at 283; MacGregor, *supra* note 115, at 333–38 (2020) (explaining the complexity of energy development in Indian country); *see* Maruca, *supra* note 5, at 403 (explaining that the complicated federal and state regulatory scheme applicable to energy development makes renewable energy development in Indian country challenging).

171. *See* MacGregor, *supra* note 115, at 333–34.

172. Ravotti, *supra* note 11, at 287.

173. Maruca, *supra* note 5, at 412. This article goes on to explain that “[t]ribes and states can and do work together on building out infrastructure.” *Id.* at 413.

174. Admittedly, such obstacles do exist. For a full discussion of such obstacles, *see generally* Maruca, *supra* note 5, at 391, 412–15.

175. *See* MacGregor, *supra* note 115, at 334–36.

176. For a discussion of the challenges facing tribes from double taxation, *see* Maruca, *supra* note 5, at 446–48.

177. Report to Victoria Tauli-Corpuz, *supra* note 94, at 14.

incentives.¹⁷⁸ “Nontaxable entities such as electric cooperatives, Indian tribes, municipal utilities, and their counterparts are deeply frustrated with . . . 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.”¹⁷⁹ Furthermore,

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 . . . for their costs to be competitive with those of other nontribal projects.¹⁸⁰

Tribes cannot utilize tax incentives to offset liabilities under the existing scheme, which in many cases forces them to seek third party investors who can benefit from the tax incentives.¹⁸¹ This reality is

[s]o essential in fact that it is causing most Tribes, looking to develop and invest into these projects, to bring on tax partners who can utilize these credits. But this is a Catch-22 of sorts for the tribes – they need the partner to take advantage of the tax credit, but for an extraordinary long period of time the Tribal governments is [sic], in essence, losing significant control over their own critical infrastructure.¹⁸²

Although a provision of the Energy Policy Act of 2005, the Indian Tribal Energy Development and Self-Determination Act of 2005, was initially seen as a solution to some of the obstacles tribes face when engaging in renewable energy development, that has not turned out to be the case. When first passed, many thought the Indian Tribal Energy Development and Self-Determination Act of 2005 would spur renewable

178. A recent survey conducted by Sandia Laboratories found that experts working within the field of renewable energy development in Indian country cited “financing and funding” as the number one obstacle to renewable energy development in Indian country. JONES & NECEFER, *supra* note 6, at 12.

179. LeBeau, *supra* note 87, at 40–41.

180. *Id.* at 43; *see also* Statement of Hon. James Roan Gray, *supra* note 80 (“As tax-exempt entities, tribal governments have a very limited ability to employ current tax-based credits and other financial incentives for renewable energy development – the primary drivers for renewable investment in the United States. Tribes and native communities often want to own and control critical renewable energy infrastructure. However, if they cannot utilize the incentive tools of tax credits, ownership is generally not feasible and prohibitive.”).

181. REPORT TO THE CHAIRMAN, *supra* note 1, at 29 (“[W]ithout access to these tax credits, development of Indian energy resources cannot easily compete with non-Indian projects that receive tax credits.”).

182. Statement of Hon. James Roan Gray, *supra* note 80.

energy development within Indian country.¹⁸³ This is because provisions of the Act should have the result of increasing renewable energy development within Indian country, such as the creation of a Director within the Office of Indian Energy Policy and Programs who is required to “promote Indian tribal energy development, efficiency, and use.”¹⁸⁴ At the time of its passage, many interested in renewable energy development in Indian country were particularly focused on Tribal Energy Resource Agreements (TERAs) under Section 2604 of the Act.¹⁸⁵ If a tribe were to enter into a TERA agreement with the Secretary of Interior, any lease, business agreement and rights-of-way involving energy development or transmission within that Native Nation’s territory would not be subject to review by the Secretary of Interior.¹⁸⁶ Many were hopeful that TERAs would help promote renewable energy development in Indian country by removing the cumbersome layer of bureaucratic review by the Department of Interior that had previously slowed down the process of energy development in Indian country.

However, despite the initial interest in TERAs, tribes have failed to take advantage of the ability to enter into a TERA with the Secretary of Interior.¹⁸⁷ This may be a result of the provision of the Act 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 tribal energy resource agreement approved by the Secretary”¹⁸⁸ One tribal councilman has suggested that the implementation of the TERA provisions also undermined congressional intent associated with the Indian Tribal Energy Development and Self-Determination Act of 2005.¹⁸⁹ Another study found that tribal leaders have been unable to get clear guidance from the federal government as to what may be covered through a TERA.¹⁹⁰ Without clear guidance, tribes are hesitant to engage in this

183. Scot W. Anderson, *The Indian Tribal Energy and Self-Determination Act of 2005: Opportunities for Cooperative Ventures*, 2005-5 ROCKY MTN. MIN. L. FOUND. INST. NO. 8 (2005).

184. Indian Tribal Energy Development and Self-Determination Act of 2005, Pub. L. No. 109-58, § 217, 119 Stat. 594, 763 (2005).

185. *Id.* § 2604.

186. *Id.*

187. See REPORT TO THE CHAIRMAN, *supra* note 1, at 32–34 (discussing some of the reasons that tribal officials may have hesitated to enter into a TERA agreement).

188. Energy Policy Act of 2005, Pub. L. No. 109–58, § 2604(e)(6)(D)(ii), 119 Stat. 594, 774 (2005).

189. Statement of Hon. Steve Herrera, *supra* note 106 (“We believe that the Secretary’s regulations implementing those provisions undermined much of what Congress intended by eliminating ‘inherent Federal functions’ . . .”).

190. REPORT TO THE CHAIRMAN, *supra* note 1, at 32–33.

process. Additionally, it proved to be that “the process of creating a TERA and gaining Secretarial approval for projects under the TERA is, itself, costly, time-consuming, and difficult.”¹⁹¹

B. Lack of Necessary Infrastructure in Indian Country

In addition to the necessary incentives, another of the most significant obstacles to renewable energy development is the lack of infrastructure,¹⁹² notably transmission lines, to move energy developed within Indian country that tends to be located in more rural portions of the country, to areas of higher population density where there is a corresponding higher demand for energy.¹⁹³

[E]nergy policy in the United States still generally focuses on large-scale development of centralized power stations connected to interstate transmission lines. The trouble with this model is that it favors fossil fuel development, which generally is falling out of favor among a majority of U.S. citizens. Moreover, this model is woefully inadequate to address large areas of Indian Country, which have no access to the national electrical grid.¹⁹⁴

The result of this model is that it is exceptionally expensive to develop transmission line access in rural and isolated areas of Indian country.¹⁹⁵

As a result, many tribes have only been able to develop relatively small renewable energy projects because of their lack of access to effective transmission infrastructure.¹⁹⁶ However, “key transmission corridors

191. Ravotti, *supra* note 11, at 306 (citing Judith V. Royster, *Practical Sovereignty, Political Sovereignty, and the Indian Tribal Energy Development and Self-Determination Act*, 12 LEWIS & CLARK L. REV. 1065, 1081–82 (2008)).

192. A recent study conducted by Sandia Laboratories of experts working in this field found that experts cited infrastructure concerns as the second more significant obstacle to renewable energy development in Indian country. JONES & NECEFER, *supra* note 6, at 12. See also REPORT TO THE CHAIRMAN, *supra* note 1, at 31.

193. Statement of Hon. James Roan Gray, *supra* note 80 (“Inadequate transmission infrastructure and capacity on Indian lands, in addition to difficult access to transmission on and from Indian lands, and obstacles to access to public energy grids, present significant hurdles to renewable energy development in Indian country . . .”); see also LeBeau, *supra* note 87, at 38.

194. Ravotti, *supra* note 11, at 290–91 (citations omitted).

195. See, e.g., Peter Meisen, *Renewable Energy on Tribal Lands*, GLOB. ENERGY NETWORK INST., 7 (2009), <http://www.geni.org/globalenergy/research/renewable-energy-on-tribal-lands/Renewable-Energy-on-Tribal-Lands.pdf> [<https://perma.cc/95QA-87CJ>] (“[P]ower lines . . . can cost approximately \$60,000 per mile in mountainous terrain.”).

196. See LeBeau, *supra* note 87, at 41. The notable exception is the wind project on the Campo Indian Reservation. This project is exceptional both because the Campo Indian Reservation is located relatively close to a high population density area and because of the substantial third-party investment. See Michael L. Connolly, *Commercial Scale Wind Industry on the Campo Indian Reservation*, 23 NAT. RES. & ENV'T 25, 26 (Summer 2008).

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.”¹⁹⁷ There may, therefore, be an opportunity for tribes to encourage the development of transmission infrastructure and capitalize on existing transmission facilities within Indian country.

C. *Burdensome Lease and Siting Review Process*¹⁹⁸

As described above, the federal government usually plays a significant role in energy development within Indian country because the federal government has an ownership interest in land held in trust¹⁹⁹ and there are numerous federal statutes that regulate the use of tribal lands for energy development.²⁰⁰ Because of the added federal bureaucracy associated with this federal control over tribal lands (and specifically lands held in trust), leasing and siting decisions in Indian country can be complicated, burdensome, and time consuming.²⁰¹ Leases for renewable energy projects generally fall under the Long-Term Leasing Act, unless a tribe has taken advantage of the provisions of the HEARTH Act.²⁰² As mentioned above, TERAs and the HEARTH Act were enacted to help address these challenges. While tribal interest in and use of TERAs has been minimal to non-existent,²⁰³ tribal interest in the HEARTH Act and

197. LeBeau, *supra* note 87, at 43; *see also* Statement of Hon. James Roan Gray, *supra* note 80 (“Although a significant transmission and federal hydropower footprint run throughout Indian Country, ironically, in virtually every instance, tribal renewable projects experience great difficulty in securing access to the transmission infrastructure on their lands[.]”).

198. Notably, Congress passed the Helping Expedite and Advance Tribal Homeownership Act (HEARTH) to make the requirements applicable to leasing tribal land less burdensome. Helping Expedite and Advance Responsible Tribal Home Ownership (HEARTH) Act of 2012, Pub. L. No. 112-151, § 2, 126 Stat. 1150, 1151 (2012); *see supra* notes 134–140 and accompanying text.

199. The federal interest in tribal lands dates to 1823 and the U.S. Supreme Court’s decision in *Johnson v. M’Intosh*, 21 U.S. 543, 604–05 (1823). In *Johnson v. M’Intosh*, the U.S. Supreme Court held that the federal government possessed naked fee simple in tribal lands and tribes possessed the beneficiary interest. *Id.* Because the federal government possesses this property interest in lands held in trust, it therefore plays a significant role in development that relates to trust land. This role is also consistent with federal plenary power in Indian country. *See generally* *United States v. Kagama*, 118 U.S. 375, 385 (1886) (holding that the federal government possesses plenary power in Indian country by virtue of the federal trust relationship over tribes).

200. *See* Tanana & Ruple, *supra* note 52, at 35–39 (discussing the numerous federal statutes that apply to the development of energy in Indian country with a focus on statutes that govern the leasing of tribal lands).

201. *See id.* (discussing the complicated nature of leasing and siting in Indian country); *see also* Maruca, *supra* note 5, at 423.

202. *See* 25 U.S.C. § 415(a).

203. “[A]s of early 2017,” no tribe has entered into a TERA agreement. Monte Mills, *Beyond a Zero-Sum Federal Trust Responsibility: Lessons from Federal Indian Energy Policy*, 6 AM. INDIAN L.J. 35, 68 (2017). *See also* Tanana & Ruple, *supra* note 52, at 38.

related provisions has been more substantial, although still limited.²⁰⁴ Still, regardless of these developments, siting and leasing in Indian country remains complicated.

The development of renewable energy resources in Indian country is also hampered by the long process currently in place to lease and site facilities. Many of these projects will be impacted by the Indian Long-Term Leasing Act.²⁰⁵ “Indian lands lease review & approval processes can easily take as many as two to three years longer than the comparable processes for projects outside of reservations, even in comparison with projects on Federal lands”²⁰⁶ Delays associated with reviewing the lease and siting agreements can add years on to a project developed in Indian country, as opposed to projects developed elsewhere.²⁰⁷ As a result of these delays,

[i]nvestors, developers and Tribes who seek to invest capital on renewable projects are finding that the lack of clarity with respect to trust and Indian land lease reviews and permitting, and the often severe delays and extraordinary and unpredictable length of time involved in such federal reviews and the federal issuance of permits, serve as a great disincentive to capital deployment.²⁰⁸

D. *Difficulty Determining Rights-of-Way*

Related to the burdensome leasing and siting review process that plagues Indian country, it can also be very difficult to determine the appropriate rights-of-way²⁰⁹ that may be implicated by the project. The federal government plays a role in any rights-of-way needed for transmission lines associated with a renewable energy project, as the Secretary of the Interior must approve such rights-of-way.²¹⁰ As a result,

204. Mills, *supra* note 203, at 69 (“Since the HEARTH Act’s 2012 enactment, over twenty tribes have assumed responsibility for review and approval of surface leases on their lands. Of these tribes, however, as of early 2017, only a few had regulations approved for wind and solar or solar resource leases.”) (citation omitted). See also Thomas, *Part Two*, *supra* note 5.

205. See 25 U.S.C. § 415. See also MacGregor, *supra* note 115, at 336 (“The Indian Long-Term Leasing Act expanded the permitted uses for Native Americans to lease their lands to include commercial and business purposes, while prior law only permitted limited mining leases. Long-term leases proposed are then subject to the Secretary of the Interior’s approval.”) (citations omitted).

206. Statement of Hon. James Roan Gray, *supra* note 80.

207. See *id.*

208. *Id.*

209. See 25 U.S.C. §§ 323–328. MacGregor, *supra* note 115, at 337 (“The General-Right-of-Way Act permits the Secretary to grant rights-of-way for all purposes over Indian trust lands, subject to consent of proper tribal officials. The Act was an attempt by Congress, in 1948, to standardize rights-of-way across several laws then in effect, as well as individual treaty terms”) (citation omitted).

210. See 25 U.S.C. §§ 321, 323.

“[a]n additional layer of complexity exists regarding tribal grants of rights-of-way (ROWs) . . . due to the fact that the ROW may not just involve tribally owned land or land held in fee simple by individual Indians, but may also involve Indian Country land that is owned in fee simple by non-Indians or non-tribal members”²¹¹ This is a result of the “checkerboard[ed]” nature of land within Indian country caused by the General Allotment Act and similar acts of the same era that divided up tribal ownership of land and ended in numerous different entities having interests in land within Indian country.²¹²

The “checker boarding” of land ownership and jurisdiction throughout Indian Country has direct effects on Indian development, especially with regards to the development of Indian energy resources. Determining who has the right to the energy resource, what state or federal agency has regulatory authority, and how development subsidies (if any) should be applied adds significant hurdles—both economic and jurisdictional—to the development of energy resources. This is especially true of renewable energy resources due to the complexities it adds with regards to ROWs over Indian Country.²¹³

Not only can it be difficult to determine ROWs because of the “checker boarding” nature of land in Indian country, but it can also be difficult to ascertain the value of such ROWs, which only further delays energy project development in Indian country.²¹⁴ “There is no statute or regulation mandating that ROW seekers must use, or that tribes must consent to, market-based appraisals or valuations for ROWs.”²¹⁵ There are also significant challenges associated with the negotiation of ROWs.²¹⁶

Accordingly, the lack of proper incentives, burdensome leasing and siting processes, the lack of adequate infrastructure, and the difficulty in determining rights-of-way combined make for significant obstacles to renewable energy development in Indian country. All is not lost, however, as the next Part of this Article demonstrates.

V. SUCCESS STORIES

Although renewable energy development has been perhaps slower

211. Ravotti, *supra* note 11, at 293.

212. COHEN’S HANDBOOK OF FEDERAL INDIAN LAW, *supra* note 20, at § 1.04.

213. Ravotti, *supra* note 11, at 294.

214. *See id.* at 294–96. “Currently, there is no standard value calculation for ROWs over Indian Country. Rather, each ROW is granted based on negotiations between the ROW seeker and the tribal government or landowner.” *Id.* at 296.

215. *Id.* at 299.

216. *Id.* at 296.

than many would like,²¹⁷ the projects below highlight the importance of tribal sovereignty to the success of renewable energy projects within Indian country. As discussed above, research has shown that the increased role of tribes and expressions of tribal sovereignty significantly increase the likelihood of project success.²¹⁸ As some of the success stories below illustrate, depending on the size of a renewable energy project, tribes possess the capacity to significantly limit the role of the federal government and non-tribal developers/investors.²¹⁹ Limiting the role of non-tribal players may be advantageous both as a way to promote tribal sovereignty and to avoid triggering federal laws that could be applicable to such projects.²²⁰

Further, the majority of energy projects occurring within Indian country have been operated and managed by non-tribal entities, and, as a result, tribes have not had the opportunity to build the necessary internal knowledge and capacity to develop their own energy projects.²²¹ By playing a key role in the development of tribal renewable energy projects, tribes not only promote their tribal sovereignty thereby increasing the likely success of the project, but also start to build the internal capacity necessary for the success of future energy related projects. Consistent with this, a recent study of experts working in this field found that the development of more small-scale renewable energy projects in Indian country would help the overall development of renewable energy projects in Indian country.²²²

The projects discussed below include both small and larger scale projects. Although the smaller scale projects may not be as financially lucrative as their larger counterparts, they are still of great value to Indian country.²²³ For example,

A disproportionate number of American Indian households live in

217. Thomas, *Developing Energy Resources*, *supra* note 92, at *3.

218. Jorgensen & Taylor, *supra* note 98.

219. Thomas, *Developing Energy Resources*, *supra* note 92, at *6.

220. *See id.*

221. JONES & NECEFER, *supra* note 6, at 7.

222. *Id.* at 14 (citations omitted).

223. *Id.* at 25. “Also, many tribes may have the ability to finance, install, and operate community and facility scale renewable energy projects. These smaller-scale projects require significantly less upfront financing and funding and less institutional capacity. They incur fewer cultural impacts, have identified customers, and generally have fewer barriers to leasing and permitting, which makes them more attractive than larger-scale installations. Small-scale projects can be seen as steps toward building capacity and achieving goals of energy self-sufficiency and independence, environmental sustainability, economic development, and community resiliency.” *Id.*; *see, e.g.*, Podmore, *supra* note 1545 (discussing the Ute Mountain Ute community of White Mesa’s successful application for a federal grant (that the Tribe will match) to develop rooftop solar on seven governmental buildings. The Tribe will save a lot of money on electricity bills because of the solar installation).

energy poverty. The Energy Information Administration (2000) reported that 14.2% of all Native American households have no access to electricity, which is more than ten times the national average. Of the 14.2% that are without electricity, the Navajo Nation in the Southwestern U.S. accounts for roughly 75%.²²⁴

Accordingly, even if the renewable energy project is only used to provide power for people located within the tribe's territory, such power generation will be very helpful to combat the energy poverty facing some tribes.²²⁵ Additionally, tribes may want to begin their foray into renewable energy development with smaller projects so they can build capacity and expertise, as well as ensure substantial control over the project.²²⁶ "Innovative market mechanisms have also developed to promote smaller scale renewable energy projects. Tribes can take advantage of many of these innovations to deploy more renewable energy projects on their lands, buildings, and tribal members' homes."²²⁷ Finally, smaller, internal projects also may avoid complex state regulatory systems, as "[c]ommercial scale projects—the power will be exported off tribal lands—are especially driven by federal and state incentives because they have to compete with wholesale electricity prices."²²⁸

Larger, Commercial-Scale Projects

Despite the potential attractiveness of smaller scale projects, several tribes have worked on the development of larger scale renewable energy projects. The following are examples of instances where tribes have had success with larger scale projects. If a tribe is in the position to develop a larger scale project, such projects can provide significant benefits to the tribe, such as providing "consistent revenue streams, increase tribal institutional capacity, mitigate climate change's impacts on Indian lands, and generate local employment opportunities."²²⁹

Some tribes possess the capacity for larger scale projects but are still

224. JONES & NECEFER, *supra* note 6, at 6 (citations omitted).

225. Maruca, *supra* note 5, at 402.

226. Thomas, *Developing Energy Resources*, *supra* note 92, at *11.

227. Thomas, *Part Two*, *supra* note 5. Ms. Thomas goes on to explain that "[f]or example, third-party ownership models, with leasing and power purchase agreements, has resulted in the deployment of hundreds of MW of roof-top solar (the SolarCities model). Public-private partnership models, such as the Morris Model, have allowed local governments to develop renewable energy projects with private, third-party developers. And many municipal utilities have joined together to invest in large renewable energy projects to diversify their generation portfolio and offer their rate-payers the ability to buy renewable energy." *Id.*

228. Thomas, *Part Two*, *supra* note 5.

229. Maruca, *supra* note 5, at 403 (citation omitted).

deciding how they wish to move forward in developing their renewable energy sources. For example, between 2012 and 2013, a feasibility study of renewable energy sources at the Pueblo of Zia was completed.²³⁰ The study determined that “ample solar, wind and geothermal resources exist” at the Pueblo to warrant the development of a generation project.²³¹ The feasibility study recommended that the Pueblo move forward with development of all its renewable energy sources.²³² Using a combination of solar, wind, and geothermal, it is anticipated that the Pueblo could generate “between 27,000,000 kWh and 47,000,000 kWh.”²³³ The Pueblo now needs to decide whether to engage in a large scale project that would involve its geothermal resources at the outset or if it will engage in more smaller scale, incremental development first through its solar and wind resources.²³⁴

Navajo Nation

The Navajo Nation is a Tribe that has engaged in both larger and smaller scale renewable energy development. The Navajo Nation covers 27,000 square miles and is the largest reservation in the country.²³⁵ Located in the Southwest, the Nation has substantial access to solar resources. Despite the alternative energy potential, approximately 10 percent residents of the Navajo reservation are without power.²³⁶ The Nation has taken steps to utilize its renewable energy potential and supply electricity to all of its residents.²³⁷ The cost of expanding the transmission grid to give the Navajo Nation’s residents access to traditional electricity

230. See U.S. DEPARTMENT OF ENERGY, TRIBAL ENERGY PROGRAM, PUEBLO OF ZIA RENEWABLE ENERGY DEVELOPMENT FEASIBILITY STUDY (Dec. 2013), https://www.energy.gov/sites/prod/files/2015/12/f27/zia_pueblo_final_report_e0005628.pdf [<https://perma.cc/2DVC-8FM4>] [hereinafter Tribal Energy Program].

231. *Id.* at 4.

232. *Id.*

233. *Id.*

234. *Id.* at 4–5.

235. *Fact Sheet*, DISCOVER NAVAJO, <https://www.discovernavajo.com/fact-sheet.aspx> [<https://perma.cc/KV3C-LJC6>] (last visited Feb. 10, 2021). See also HISTORY NAVAJO NATION GOV’T, <https://www.navajo-nsn.gov/history.htm> [<https://perma.cc/VM33-LY4W>] (last visited Feb. 10, 2021).

236. Laurel Morales, *For Many Navajos, Getting Hooked Up to the Power Grid Can Be Life-Changing*, NPR (May 29, 2019, 5:00 AM), <https://www.npr.org/sections/health-shots/2019/05/29/726615238/for-many-navajos-getting-hooked-up-to-the-power-grid-can-be-life-changing> [<https://perma.cc/PE39-QZUM>].

237. See *Wind Turbines Power Remote Navajo Homesteads*, NAWIG NEWS (Nat’l Renewable Energy Lab’y, Golden, Colo.), Spring 2004, at 1, <https://www.nrel.gov/docs/fy04osti/35445.pdf> [<https://perma.cc/EX52-TWPK>].

was prohibitively expensive.²³⁸ As a result, with help from the Department of Energy, the Nation installed 72 individual solar energy systems.²³⁹ In 2000, 200 more solar photovoltaic systems were purchased for use by individual residents of the reservation.²⁴⁰ The Nation also began to develop its wind resources as a corollary to its solar resources.²⁴¹ As a result, the Nation has incorporated wind turbines within many of its solar stations.²⁴² After all, even in the Southwest, “the sun doesn’t shine all the time.”²⁴³

Additionally, in 2017, the Nation’s Kayenta Solar Project started producing energy and transmitting it to the grid.²⁴⁴ At 27 KW, this Kayenta Solar Project is relatively small, but the Nation will likely use its experience gained through this project to develop others.²⁴⁵

Recently, the Nation expressed interest in developing significantly more solar energy potential at its Paragon-Bisti Solar Ranch (PBSR), which encompasses approximately 22,000 acres of land.²⁴⁶ The Navajo Hopi Land Commission Office and the Nation plan to develop solar resources at the PBSR, which was set aside as part of the Navajo Hopi Land Settlement Act.²⁴⁷ “According to the preliminary design herein, these sites could provide 2.1 billion watts (gigawatts, or GW) of peak power.”²⁴⁸ In addition to the generation of renewable energy, the project (if fully developed) “should avoid the emission of 52 to 176 megatons of GHGs [greenhouse gases],” and “would displace the mining and burning of 14 to 48 million metric tonnes of fossil fuel (oil or coal), which would fill a train about 3,000-10,000 miles long.”²⁴⁹ In addition to these energy and environmental benefits, the proposed project would likely lead to needed job creation and potential revenue from the sale of electricity

238. Morales, *supra* note 236.

239. *Navajo Tribal Utility Authority Brings Solar Electricity to Homes in Remote Areas*, SANDIA NAT’L LAB’YS (July 13, 2000), <http://www.sandia.gov/media/NewsRel/NR2000/navajos.htm> [<https://perma.cc/Q42L-UGW5>].

240. *Id.*

241. *Wind Turbines Power Remote Navajo Homesteads*, *supra* note 237.

242. *Id.*

243. *Id.* at 1.

244. Maruca, *supra* note 5, at 398.

245. *Id.* at 398–99.

246. U.S. DEP’T OF ENERGY TRIBAL ENERGY PROGRAM, FEASIBILITY STUDY FOR PARAGON-BISTI SOLAR RANCH ES-i (June 2015), https://www.energy.gov/sites/prod/files/2015/12/f27/nhlco-feasibility-study_de-foa-0000424-june2015.pdf [<https://perma.cc/TW5J-XL8V>].

247. *Id.*

248. *Id.* Additionally, the feasibility study estimates that the number could grow to 90 to 144 million MWh over the life of the project, if it is fully developed. *Id.* at ES-iv.

249. *Id.* at ES-iv.

generated.²⁵⁰ The Navajo Nation, however, has not yet decided on the scale and scope of the project.²⁵¹ The Nation may decide to start with a smaller project before jumping into a larger, commercial project.²⁵² In addition to the Navajo Nation, the State of New Mexico also supports this project as a way of developing renewable energy, and has agreed to contribute money toward the project.²⁵³ The Nation sees this project as potentially serving as a template for future renewable energy development.²⁵⁴

Campo Band of Kumeyaay Indians

Another model for tribes interested in developing alternative energy resources is the project developed by the Campo Band of Kumeyaay Indians.²⁵⁵ The Campo Band of Kumeyaay Indians has successfully developed the largest wind power project in Indian country.²⁵⁶ More so than perhaps other tribes, the Campo Band is uniquely situated to be able to benefit from wind energy development.

Campo has an estimated . . . potential for over 300 megawatts of wind generation capacity The reservation has a substation that provides ready access to a 69 kilovolt (kV) utility line. The utility line was already scheduled for an upgrade in its carrying capacity from 269 to 418 amps and Superior Renewable was able to negotiate an accelerated upgrade to handle the wind project load. Interstate 8 runs next to the project site, making access to the site simply a matter of grading three miles of existing dirt road 50 percent wider to handle the width of the shipping trucks.²⁵⁷

As a result of the unique position of the Campo Band, the wind project has been very successful in terms of its completion and generation of electricity.

250. *Id.*

251. *See id.* at ES-iii.

252. *See id.*

253. *Navajo Nation to Support New Mexico's Diversified Energy Economy with Paragon Bitsi Ranch Solar Development*, NATIVE BUS. (Aug. 8, 2019), <https://www.nativebusinessmag.com/navajo-nation-to-support-new-mexicos-diversified-energy-economy-with-paragon-bitsi-ranch-solar-development/> [https://perma.cc/BA9B-LSZ2].

254. *Id.*

255. *See Kumeyaay Tribe Earns \$16,000 Per Turbine*, NAWIG NEWS (Nat'l Renewable Energy Lab'y, Golden, Colo.) (Summer 2006) 1, <https://www.nrel.gov/docs/fy06osti/39236.pdf> [https://perma.cc/6ZP7-DWQ8].

256. *Id.* at 2; Bernie Woodall, *Native Americans Try to Reap the Wind for Power*, ENVI WEB (Jan. 3, 2006), <http://blog.enviweb.cz/56699> [https://perma.cc/43E9-HE9L]

257. Connolly, *supra* note 196, at 26.

Campo currently hosts 25 two-megawatt turbines, which occupy approximately forty-five acres of tribal land in a 2.5-square-mile restricted-use lease area. These turbines supply enough power for approximately 30,000 homes and offset approximately 110,000 tons of greenhouse gas emissions per year based on the U.S. average mix of sources of 1.5 pounds of CO₂ per kilowatt-hour.²⁵⁸

The Band is acting solely as the landowner in the project and therefore incurs little financial risk if the project is not successful.²⁵⁹ The Tribe leases the land to a third party energy developer who owns the wind energy infrastructure, sells the energy, and receives the financial and tax incentives.²⁶⁰ Ultimately, “the revenue the Tribe receives from the lease agreement is less than it would receive if the Tribe were a partner in the energy sales.”²⁶¹ In fact, “San Diego County received more revenue from taxing the tribes’ lessee partner than the tribe received from lease payments.”²⁶² In order to take advantage of federal tax incentives that helped to pay the construction costs associated with the project, the Tribe was forced into this passive role as a land owner rather than owner of the project.²⁶³ In this regard, the project was not a success from the Tribe’s perspective as the Tribe was relegated to a passive role.

The experience of the Campo Band of Kumeyaay Indians is likely similar to the experience many tribes have encountered or will encounter while developing renewable energy resources. Tribes are not taxable entities under federal law.²⁶⁴ As a result, a portion of a renewable energy project owned by a tribe will not receive the same tax benefits as a taxable entity would. There is little incentive from a tax perspective for a tribe to become involved in renewable energy development. Given this reality, some tribes, such as the Campo Band, who opt to develop their renewable energy resources do so by leasing their land to third party investors, who in turn reap the tax benefits.²⁶⁵ This arrangement allows both the Tribe

258. *Id.* at 27.

259. *Id.*; see also Maruca, *supra* note 5, at 460.

260. REPORT TO THE CHAIRMAN, *supra* note 1, at 2.

261. Ravotti, *supra* note 11, at 316–17.

262. JONES & NECEFER, *supra* note 6, at 21 (citations omitted).

263. Maruca, *supra* note 5, at 458. Notably, when the Tribe sought to develop a second project and undertake a more active role as a part owner in the project, the effort was unsuccessful in large part because the necessary federal tax incentives were not available. *Id.* at 461.

264. “Over 50 percent of the profitability of a wind energy project can be directly tied to the federal tax incentives. These market incentives are geared toward tax-paying entities. Tribal governments, as with all governments, are not tax-paying entities and therefore are unable to use incentives based on tax credits or accelerated depreciation. Indian tribes are not taxable entities. This renders the federal tax incentives ineffective when dealing with projects that may have all or part tribal-government ownership.” Connolly, *supra* note 196, at 26 (citations omitted).

265. *Id.*

and its third-party investor to benefit financially from the arrangement: the Native Nation receives the lease payments and the third-party investor receives the tax benefits associated with alternative energy development.²⁶⁶

This arrangement is less than ideal for the Campo Band, however, as the Band does not receive as much income as it would if it were a partial owner of the project. Based on the tribal perspective, therefore, it may not be a success.

Smaller Scale Projects

As mentioned above, there are several reasons why tribes may want to develop smaller scale renewable energy projects. Such projects may be contained within Indian country thereby reducing the role the state and potentially the federal government plays, while ensuring tribal regulatory authority.²⁶⁷ Additionally, smaller projects and investments can yield substantial economic returns for tribes in terms of cost savings over traditional energy development.²⁶⁸ These projects also assist tribes in developing expertise and capacity that may assist the tribe in developing future larger, commercial projects. These advantages of smaller scale renewable energy projects are highlighted by the examples discussed below.

Blackfeet Nation's Wind Power Project

The Blackfeet Nation's wind power project is an example of a Tribe that successfully implemented a small-scale alternative energy development project for the reasons articulated above.²⁶⁹ The Energy Policy Act of 1992's Title XXVI provided the initial funding for the Nation's demonstration project.²⁷⁰ The DOE awarded the Nation approximately \$153,000, with additional contributions provided by the

266. *See generally id.* Each year, the Band is expected to receive about \$16,000 per turbine, totaling \$400,000, which represents five percent of the project's total income stream. *Kumeyaay Tribe Earns \$16,000 Per Turbine*, *supra* note 255, at 1. The project's financial backers also gave the Band a \$200,000 initial payment. *Id.* The amount the Band will receive is substantially higher than the industry average because of the high land values in San Diego county where the Band is located. *Id.*

267. *See supra* Section III.B.ii

268. *See supra* Section III.A.

269. *See Blackfeet Tribe – 1995 Project*, U.S. DEP'T OF ENERGY, <https://www.energy.gov/indianenergy/blackfeet-tribe-1995-project> [https://perma.cc/M5R4-HXGS] (last visited Mar. 4, 2021).

270. *Blackfeet Tribe – 1994 Project*, U.S. DEP'T OF ENERGY, <https://www.energy.gov/indianenergy/blackfeet-tribe-1994-project> [https://perma.cc/M2Y7-JQRC] (last visited Mar. 4, 2021).

Blackfeet Nation and others.²⁷¹

A single turbine went on-line in 1996.²⁷² The purpose of the project was to test the wind viability of the area.²⁷³ Glacier Electric Cooperative's system credited Blackfeet Community College for the electricity generated by the project.²⁷⁴ Electricity generated almost completely offsets the college's energy needs.²⁷⁵ Furthermore, the project was generally considered a success, as there was no harm to birds or bats, public reaction was positive and Glacier Park, Inc. approached the Nation to explore wind generation possibilities for Glacier National Park.²⁷⁶ The project also provided jobs for people on the reservation, where unemployment was estimated at eighty percent.²⁷⁷

Pueblo of Kewa: Solar Photovoltaic System

In 2015, the Santo Domingo Tribe (Kewa Pueblo) received a grant from the Department of Energy Office of Indian Energy Program “for the planning, design and installation of 100,000-watt (W) AC rated solar photovoltaic system.”²⁷⁸ Prior to receiving the grant and developing the solar photovoltaic system, the Pueblo incurred substantial costs to run a pumphouse, which was “the sole source for providing water to the Pueblo's infrastructure and its 5,000+ residents.”²⁷⁹ From planning to installation, the project took approximately 2 years to complete.²⁸⁰ Upon completion, the project generated enough electricity to successfully run the pumphouse.²⁸¹ Additionally, the Pueblo anticipates that it will see a “cost saving of ~ 35%” over the cost of running the pumphouse with electricity purchased through the traditional market, and the Pueblo anticipates that it will reduce its “CO2 emissions by 2.4 million

271. See *Blackfeet Tribe – 1995 Project*, supra note 269.

272. *Id.*

273. *Id.*

274. Roy Nollkamper, *Blackfeet Tribe Harnesses Wind Power*, MONT. GREEN POWER 25–26 (https://www.communityreview.org/sites/default/files/assessment_reports/Northern_Arapaho_Tribe_Wind_River_Indian_Reservation_CR_Report_May_2003.pdf [<https://perma.cc/ZC9W-4VC7>] (last visited Feb. 10, 2021)).

275. *Blackfeet Tribe – 1995 Project*, supra note 269.

276. *Id.*

277. *Id.*

278. U.S. DEP'T OF ENERGY, OFF. OF INDIAN ENERGY, SANTO DOMINGO FINAL NARRATIVE REPORT 2 (Dec. 2019), <https://www.energy.gov/sites/prod/files/2019/07/f64/santo-domingo-final-report.pdf> [<https://perma.cc/K9HB-4ANK>].

279. *Id.* at 4.

280. *Id.* at 4. The project may have taken less than 2 years, but the Pueblo experienced a setback when one of its key tribal representatives resigned from her position. *Id.*

281. *Id.* at 4.

lbs./year.”²⁸² The small scale renewable project was therefore a success both in terms of saving the Pueblo money over the long term and in helping to reduce the Pueblo’s carbon footprint and increase its energy resiliency. Additionally, the Pueblo indicated in its final report to the Department of Energy that the opportunity to participate in this project increased the Pueblo’s capacity for understanding these types of projects and allows the Pueblo to consider similar projects that may benefit the Pueblo in the future.²⁸³

Moapa Micro Grid Project

Entering into operation in 2017, the Moapa Micro Grid Project is a 250 MW solar plant located within tribal lands.²⁸⁴ Although the project sits on tribal lands, it is owned and operated by a non-tribal entity.²⁸⁵ Like the Kumeyaay project discussed above, the Tribe was unable to take an ownership interest in the project and benefit from federal tax incentives.²⁸⁶ There is one notable difference, however, “once the benefit of those [federal tax] credits is realized, ownership will transfer to the tribe.”²⁸⁷ So, after approximately 10 years, the Tribe will be able to possess an ownership interest.²⁸⁸ The project was developed after a local fossil fuel facility shut down, and many of the tribal members expressed preference for the cleaner energy generation of the solar project over the pollution that came from the previous facility.²⁸⁹

Despite the significant obstacles discussed in the foregoing Part, these examples demonstrate that renewable energy development in Indian country is possible – both at a smaller and large scale. The obstacles presented, however, do increase the likelihood that tribes will be forced into the role of lessor of land rather than a more active role as project owner or manager. The research discussed above, such as the Harvard study on economic development suggests that to have truly successful development in Indian country – it is necessary to center tribal sovereignty. Accordingly, this Article concludes with some thoughts on how tribes might build on the successes discussed above while also promoting tribal sovereignty in the process of such renewable energy

282. *Id.* at 4–5.

283. *Id.* at 10.

284. Maruca, *supra* note 5, at 397.

285. *Id.* at 463.

286. *See id.*

287. *Id.*

288. *Id.* at 466–67.

289. *Id.* at 397–98.

development.

VI. CONCLUDING THOUGHTS

Significant renewable energy development is both possible and desired by numerous different entities within the United States. Yet, widespread development is not happening, despite examples of successful development within some tribes. This Article demonstrates how tribal sovereignty presents a pathway for successful renewable energy development in Indian country.²⁹⁰ As discussed above the Harvard Project of American Indian Economic Development determined that successful economic development in Indian country requires “exercising of self-determination, bolstering of cultural values, and strengthening of tribal institutions.”²⁹¹ Renewable energy development has the potential to accomplish all three, when such development is done in a way that promotes tribal sovereignty. There are numerous advantages to renewable energy development that promotes tribal sovereignty, such as tribes choosing to facilitate such development, less procedurally complex land use regulations, guidance available from the federal government, and immunity from certain taxation.²⁹²

Yet, to accomplish renewable energy development in Indian country in a way that promotes tribal sovereignty, reform is needed. As discussed above, the two tools that have been developed by the federal government – the TERA provisions and HEARTH Act, have failed in promoting tribal sovereignty and ownership of such renewable energy projects developed in Indian country.²⁹³ Reform should center tribal sovereignty and focus on promoting tribal self-determination.²⁹⁴

Moving forward, there are also additional reforms that would help to promote renewable energy development in Indian country.²⁹⁵ For example, the current federal tax incentives are structured in such a way that tribes cannot participate, as they are sovereign governments.²⁹⁶ “[T]he

290. JONES & NECEFER, *supra* note 6, at 22.

291. Maruca, *supra* note 5, at 419.

292. *Id.* at 415.

293. *Id.* at 481–82.

294. *Id.* at 483–87.

295. For a discussion of some of the proposed reforms that have already been considered, see Mills, *supra* note 203, at 70–75.

296. Ravotti, *supra* note 11, at 304–05 (discussing aspects of the current federal scheme to promote renewable energy development that have the effect of precluding tribes from taking advantage of tools designed to promote this type of development). *But see* Maruca, *supra* note 5, at 414 (explaining that there some federal tax incentives, such as the New Markets Credits, that may prove useful to tribes engaging in renewable energy development in Indian country).

need for Indian-specific tax and rebate programs is clear.”²⁹⁷ In addition to promoting tribal sovereignty in association with renewable energy development in Indian country, stakeholders would also be wise to carve out exceptions for Indian tribes to federal regulations that preclude sovereigns from benefiting from tax incentives.²⁹⁸ Because tribes do not have federal tax liability, they are unable to take advantage of the numerous federal tax incentives that have been enacted.²⁹⁹ Additionally, “Indian-specific tax or rebate programs would not be a windfall to Indians at the expense of non-Indians. Rather, such programs would recognize the need for access to energy in Indian Country while at the same time creating a positive benefit to non-Indians as well.”³⁰⁰ Without such policy changes, tribes will likely be relegated to playing a limited role in large scale commercial projects within Indian country.³⁰¹ The need for such reform to federal tax incentives is exacerbated by the fact that tribes are unable to avail themselves of general capital markets for project financing, making the federal tax incentives that much more important.³⁰² Without such reform, the current regulatory structure encourages tribes to assume a more passive role in such development – that of the lessor of land.³⁰³ It is clear that many tribes would like to avoid this passive role and assume a more active role as owner, and “[o]wnership allows for practical sovereignty, a prerequisite for development.”³⁰⁴

In addition to changes to federal law and policy,³⁰⁵ non-tribal third-party investors and developers can take steps to encourage that renewable energy development happens in a way that prioritizes tribal sovereignty and encourage good relations between the parties involved.³⁰⁶ For example, emerging best-practices of consultation and development

297. Ravotti, *supra* note 11, at 305.

298. See JONES & NECEFER, *supra* note 6, at 24 (explaining the negative impact on tribes from the federal tax policies that do not typically allow tribes to benefit from federal tax incentives promoting renewable energy development); REPORT TO THE CHAIRMAN, *supra* note 1, at 29.

299. Thomas, *Part Two*, *supra* note 5, at 4–5.

300. Ravotti, *supra* note 11, at 305.

301. Thomas, *Developing Energy Resources*, *supra* note 92, at *11.

302. Maruca, *supra* note 5, at 438.

303. *Id.* at 442.

304. *Id.* at 479. Maruca goes on to explain that “[p]ractical sovereignty entails being in control of economic resources and increases the chances of long-term success. The mechanism is simple: when tribal institutions are in control, the institutions are strengthened and made accountable to members, leading to more sustainable development.” *Id.* at 479–80 (citations omitted).

305. Some scholars have gone so far as to argue that to have effective energy development in Indian country, the entire federal-tribal relationship should be reconsidered. See, e.g., Mills, *supra* note 203.

306. Thomas, *Developing Energy Resources*, *supra* note 92, at *10 (explaining that having a good working relationship is an important component of a successful renewable energy development project in Indian country).

suggest that these entities can significantly benefit from paying for project related fees and legal costs.³⁰⁷ Although not an example of renewable energy development, the Ruby Pipeline Project is an example of how the energy industry's effective support of and engagement with tribal governments led to the successful development of a pipeline through Indian country.³⁰⁸ Given that many other pipeline projects have either failed or been significantly delayed because of tribal opposition, the success of the Ruby Pipeline Project is a notable exemplar of how these best practices promoting tribal sovereignty can benefit non-tribal entities that wish to engage in development within Indian country.

Renewable energy development in Indian country is possible as extensive resources exist within these lands. Such development can be done in a way that centers tribal sovereignty, promotes tribal environmental ethics, and protects cultural resources – benefitting the tribes involved. But the benefits are not limited to tribes, as non-tribal third-party investors and the federal government can also benefit from such development. Despite this interest and potential, however, development has not been as widespread as may be desired. This Article shows a way forward – one that centers tribal sovereignty and calls for some regulatory reform and rethinking of how to best consult and work with tribes. Through creative thinking and respect for tribal sovereignty, everyone can benefit from increased renewable energy development.

307. See Eid, *supra* note 152, at 605–06.

308. *Id.* at 606.