

2017

Access to Energy in Indian Country: The Difficulties of Self-Determination in Renewable Energy Development

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Nicholas M. Ravotti, *Access to Energy in Indian Country: The Difficulties of Self-Determination in Renewable Energy Development*, 41 AM. INDIAN L. REV. 279 (2017), <https://digitalcommons.law.ou.edu/air/vol41/iss2/2>

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ACCESS TO ENERGY IN INDIAN COUNTRY: THE DIFFICULTIES OF SELF-DETERMINATION IN RENEWABLE ENERGY DEVELOPMENT

*Nicholas M. Ravotti**

Abstract

By many measures, Indian tribal members live at a significant disadvantage as compared to non-Indian citizens when it comes to poverty, food security, and prevalence of violent crime. One measure of disadvantage that is not frequently discussed is that many Indian tribal members living in Indian Country do not have ready access to electrical energy. Yet, the Department of Energy states that over 14 billion megawatt hours (MWh) of solar resources and 1.1 billion MWh of wind resources are available in Indian Country. The presence of such abundant renewable energy resources begs the question of why access to energy in Indian Country is so low. This is especially troublesome when considering that wind and solar energy resources can be developed as either utility-scale grid-connected facilities, or as small-scale geographically distributed facilities that service individual households. In essence, renewable energy sources are the ideal forms of energy to bring energy access to Indian Country. This Article explores how centuries of changing federal policy toward Indian tribal governments and tribal members have shaped the current state of energy access in Indian Country. Furthermore, this Article examines how economic incentives such as the Investment Tax Credit, the Production Tax Credit, feed-in tariffs, net metering, and state renewable portfolio standards have been successful at bringing renewable energy generation online, but actually steer renewable energy development away from Indian Country to the detriment of tribal governments, tribal members, energy developers, and energy consumers.

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I. Introduction

Despite the prevailing notion among non-Indians that Indian reservations are vast desolate areas with no economic value, tribal lands actually contain abundant energy resources in the form of coal, oil, and natural gas.¹ Both historically and presently, Indian fossil fuel resources have been a driving force behind many tribal economies, with royalties from surface and mining leases totaling \$812 million in 2015.² In addition to the vast fossil fuel

1. Judith V. Royster, *Tribal Energy Development: Renewables and the Problem of the Current Statutory Structures*, 31 STAN. ENVTL. L.J. 91, 92 (2012) (“Production on Indian lands represents 5% of domestic oil production, 8% of natural gas production, and 2% of coal production.”); see also Lynn H. Slade, *Mineral and Energy Development on Native American Lands: Strategies for Addressing Sovereignty, Regulation, Rights and Culture*, 56 ROCKY MTN. MIN. L. INST. 5A-1 (2010).

2. *Statistical Information*, OFFICE OF NAT. RES. REVENUE, <http://statistics.onrr.gov/ReportTool.aspx> (last visited Mar. 29, 2016) (select “Reported Revenues by Category,” then “FY2015”).

resources present in Indian Country,³ there are abundant renewable energy resources available as well.⁴

Renewable energy resources present a unique opportunity for tribal governments and tribal members; although fossil fuel resources are economically lucrative to tribes, the fossil fuel market is subject to extraordinary uncertainty.⁵ Additionally, fossil fuel development typically requires the energy-producing resource to be extracted and removed from Indian Country for sale on the open market.⁶ However, renewable energy resources such as wind and solar are not commodities that can be extracted and transported. Rather, renewable energy must be sold at the point of generation.⁷ Therefore, 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.⁸

3. The term "Indian Country" is defined at 18 U.S.C. § 1151 as

(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.

18 U.S.C. § 1151 (2012). For the purposes of this Article, the term serves the general purpose of describing land over which Indian tribes have some regulatory or jurisdictional authority. When a tribe-specific or statute-specific definition is required, it will be provided.

4. See ENERGY INFO. ADMIN., U.S. DEP'T OF ENERGY, ENERGY CONSUMPTION AND RENEWABLE ENERGY DEVELOPMENT POTENTIAL ON INDIAN LANDS 23-26 (Apr. 2000), <https://www.eia.gov/renewable/archive/neaf0001.pdf> (listing and discussing reservations with the highest potential for renewable energy projects).

5. See Ronald H. Rosenberg, *Diversifying America's Energy Future: The Future of Renewable Wind Power*, 26 VA. ENVTL. L.J. 505, 505-07 (2008) (discussing increases in fuel costs and the adverse effects these increases have on consumers' behavior).

6. See *Benefits of Renewable Energy Use*, UNION OF CONCERNED SCIENTISTS, http://www.ucsusa.org/clean_energy/our-energy-choices/renewable-energy/public-benefits-of-renewable.html#references (last revised Apr. 8, 2013) ("[I]n most states renewable electricity production would reduce the need to spend money on importing coal and natural gas from other places.").

7. See *id.*

8. Cf. Robert Gough, *Tribal Wind Power Development in the Northern Great Plains*, NAT. RESOURCES & ENV'T, Fall 2004, at 57, 57 (noting that reservations bear the impacts of extractive energy activities while "the resident tribal communities are the limited end-use consumers of relatively higher-priced energy services").

The fact that Indian tribes control vast amounts of renewable energy resources at a time when the United States is committed to sourcing more energy from renewable sources⁹ is great for tribal governments and tribal members. However, despite the abundance of economically viable energy resources in Indian Country, by many metrics, Indian citizens in the United States remain at a significant social and economic disadvantage compared to non-Indians. Indians have less access to educational opportunities,¹⁰ fewer opportunities for gainful employment,¹¹ and are at an increased risk of violent crime.¹² 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,¹³ as well as to economic security and vitality.¹⁴

Unless and until tribes begin to fully utilize their renewable energy resources, it seems unlikely that the negative socioeconomic factors in Indian Country will be fully or adequately addressed. Producing power from renewable energy sources in Indian Country, however, is much more complex than producing energy from renewable resources on non-tribal land. This Article will explore those complexities and examine key changes that can or should be made to enable tribes to capitalize on their renewable energy resources.

Part II of this Article will provide a brief overview of the field of energy law, which will provide background and context regarding energy regulation. Part II will also include a discussion of the federal tax incentives and state utility rebate incentives that presently drive much of the renewable energy development in the United States. Part II will examine how these tax and rebate incentives apply in Indian Country, and how tribes can best utilize these incentives to develop their renewable energy

9. Press Release, Obama for Am., Barack Obama and Joe Biden: New Energy for America, https://energy.gov/sites/prod/files/edg/media/Obama_New_Energy_0804.pdf (last visited Apr. 18, 2017).

10. See ALGERNON AUSTIN, ECON. POLICY INST., EPI BRIEFING PAPER #370, NATIVE AMERICANS AND JOBS: THE CHALLENGE AND THE PROMISE 24 (Dec. 17, 2013).

11. See *id.* at 3.

12. NAT'L CONG. OF AM. INDIANS, POLICY INSIGHTS BRIEF: STATISTICS ON VIOLENCE AGAINST NATIVE WOMEN 2 (Feb. 2013).

13. The UN-World Bank Sustainable Energy for All program has declared universal access to electricity by 2030 as one of its goals, stating that access to energy is fundamental for economic development and prosperity. See *Our Mission*, SUSTAINABLE ENERGY FOR ALL, <http://www.se4all.org/our-mission> (last visited Apr. 21, 2017).

14. See U.N. DEV. PROGRAMME, WORLD ENERGY ASSESSMENT: ENERGY AND THE CHALLENGE OF SUSTAINABILITY 44 (Sept. 2000).

resources. Part III will discuss tribal energy resource agreements in the Energy Policy Act of 2005. Part III will also examine how these agreements, though intended to enhance energy development in Indian Country through tribal self-determination and autonomy, are actually ineffective and paternalistic, and therefore fall short of their intended goal. Part IV will discuss several Indian-driven solutions to increase access to energy in Indian Country. Part IV will also provide a brief and high-level overview of these projects and is not intended to be an exhaustive list of all the Indian-driven energy projects undertaken in Indian Country. Rather, the purpose of presenting these projects is to demonstrate not only the breadth of need for energy development in Indian Country, but also to demonstrate that successful Indian Country energy development projects are “unconventional,” in that they address niche problems associated with energy insecurity in Indian Country. Furthermore, these projects demonstrate the value in Indian-driven solutions to Indian Country energy problems. Finally, Part V will offer a brief conclusion.

II. A Brief Primer on Federal Energy Law and Policy

When discussing energy policy in the United States, it is critical to understand that the United States does not have a single energy policy. Rather, the United States has a patchwork of policies (both state and federal) that regulate resource extraction, energy generation, the transfer of energy-producing commodities, the transmission of energy itself across state lines and on the national grid, and energy consumption by consumers. In a similar vein as the field of Indian law, these policies have developed over more than a century’s time, and have generally tended to be reactionary rather than the result of long-term strategic planning. Unlike Indian law, however, United States energy policy is continually changing to meet the changing needs of industry, commerce, and energy consumers. The obvious difficulty with this system is that determining or even coordinating regulatory authority can be difficult and confusing. This is especially true when resources travel through Indian Country. Some of these difficulties will be discussed in greater detail in later parts of this Article. This part is meant to give a brief overview of the United States’ energy policy and the agencies which oversee energy resources.

A. The Foundation of Federal Energy Regulation

Although there are multifarious points in time that could mark the beginning of energy policy in the United States, the most appropriate point for the purposes of this Article is the creation of the Department of the

Interior (DOI) in 1849.¹⁵ In 1946, the Bureau of Land Management (BLM) was created within the DOI to manage leases and permits for resource extraction on public lands controlled by the DOI.¹⁶ The BLM currently oversees leasing for coal, oil, and natural gas extraction, as well as leases for renewable energy development on federal lands.¹⁷ As it pertains to energy policy, the DOI regulates the land parcels in which energy-producing commodities are located, and the BLM regulates the extraction of these commodities through leases to private entities.¹⁸ Prior to expansive electricity grids and oil and natural gas pipelines, this regulatory authority represented a substantial portion of United States energy policy since energy was typically generated near the geographic locality where the energy-producing commodity was extracted.

In 1887, Congress passed the Interstate Commerce Act, which created the Interstate Commerce Commission (ICC).¹⁹ The ICC was charged with regulating the transportation of goods across state lines by common carriers.²⁰ The ICC's regulatory authority was expanded by the Hepburn Act, which granted the ICC the authority to set a ceiling on the maximum rate that railroads could charge for the transportation of goods.²¹ This authority gave the ICC a substantial amount of influence over energy prices, as energy-producing commodities began traveling from geographically isolated areas to larger population centers.²² The Hepburn Act also represents the first substantial step by the federal government in

15. Act of Mar. 3, 1849, ch. 108, 9 Stat. 395.

16. Reorganization Plan No. 3 of 1946, § 403, 60 Stat. 1097, 1100. The Bureau of Indian Affairs ("BIA") is also housed within the DOI. BIA is responsible for managing the federal trust responsibility of the federal government to Indians and tribal resources.

17. *What We Manage*, BUREAU OF LAND MGMT., <https://www.blm.gov/about/what-we-manage/national> (last visited Aug. 24, 2017).

18. Statement of Neil Korzne, Director, Bureau of Land Management, U.S. Department of the Interior (Mar. 23, 2016), <https://oversight.house.gov/wp-content/uploads/2016/03/Kornze-BLM-Statement-3-23-Oil-and-Gas-Leasing.pdf> (delivered at *Recent Management of Oil and Gas Lease Sales by the Bureau of Land Management: Hearing Before the H. Comm. on Oversight and Gov't Reform*, 114th Cong. (2016)).

19. Ch. 104, 24 Stat. 379 (1887) (codified as amended in scattered sections of 49 U.S.C.)

20. *Id.* § 12, 24 Stat. at 383.

21. Ch. 3591, 34 Stat. 584 (1906) (codified as amended in scattered sections of 49 U.S.C.)

22. See Paul Stephen Dempsey, *Rate Regulation and Antitrust Immunity in Transportation: The Genesis and Evolution of This Endangered Species*, 32 AM. U.L. REV. 335, 339-50 (1983) (discussing discriminatory "rate wars" prior to the formation of the ICC, and the ICC's authority to set rate schedules).

recognizing that energy markets require oversight and regulation because of their broad effects on unrelated sectors of the national economy. The ICC was ultimately abolished in 1995, and much of its authority transferred to the newly created Surface Transportation Board within the Department of Transportation.²³ However, the ICC's regulatory authority over oil pipelines transferred to the Federal Energy Regulatory Commission, which regulates energy transmission rates across the national grid.²⁴

The regulation of energy itself, rather than energy-producing commodities, began in 1920 with the passage of the Federal Water Power Act (FWPA), which created the Federal Power Commission (FPC).²⁵ The FPC was initially primarily responsible for licensing hydroelectric dam development.²⁶ However, the 1935 amendments to the FWPA, known as the Federal Power Act (FPA),²⁷ expanded the FPC's regulatory authority to include wholesale rates and transmission rates of electric energy across state lines.²⁸ In 1938, the Natural Gas Act (NGA) gave the FPC regulatory authority over transportation of natural gas across state lines, as well as regulatory authority over wholesales of natural gas.²⁹ The FPC subsequently expanded this authority through a series of cases—*Federal Power Commission v. Natural Gas Pipeline Co.*,³⁰ *Federal Power Commission v. Hope Natural Gas Co.*,³¹ and *Phillips Petroleum Co. v. Wisconsin*.³²

When the FPC set rates for the wholesale natural gas sales of the Natural Gas Pipeline Company (NPC), the NPC argued in *Natural Gas Pipeline Co.* that it was not subject to the FPC ratemaking authority because its business model did not constitute interstate commerce.³³ The NPC produced and purchased natural gas at its facilities in Texas, and transferred this gas via pipelines, which it wholly owned, to other wholly owned facilities in

23. ICC Termination Act of 1995, Pub. L. No. 104-88, 109 Stat. 803.

24. Alexandra B. Klass & Danielle Meinhardt, *Transporting Oil and Gas: U.S. Infrastructure Challenges*, 100 IOWA L. REV. 947, 980 (2015).

25. Ch. 285, 41 Stat. 1063 (1920) (codified as amended at 16 U.S.C. §§ 791a-823 (2012)).

26. *Id.* § 4, 41 Stat. at 1065-67.

27. Ch. 687, 49 Stat. 803, 838 (1935) (codified as amended at 16 U.S.C. §§ 791a-828 (2012)) (title II of the Public Utility Act of 1935, ch. 687, 49 Stat. 803).

28. *Id.*

29. Ch. 556, § 1, 52 Stat. 821, 821 (codified as amended at 515 U.S.C. § 717 (2012)).

30. 315 U.S. 575 (1942).

31. 320 U.S. 591 (1944).

32. 47 U.S. 672 (1954).

33. 315 U.S. at 581-82.

Illinois.³⁴ Although the NPC ultimately sold the natural gas wholesale to Illinois utilities for retail resale to customers, the NPC argued that this was an intrastate transaction, and that the state should regulate it rather than the FPC.³⁵ The Court held that even though the FPC's rate would cost the NPC significant revenue, the rate was constitutional as long as the ratemaking process involved two steps. First, the adjustment of the rate must allow for a fair revenue return to the company, even if not the most profitable return.³⁶ Second, the rate schedule providing for the fair return must eliminate discrimination and unfairness from the market.³⁷ The Court reached this two-step process after analogically reasoning that the ICC was granted similar ratemaking authority under the Transportation Act of 1920,³⁸ upon which part of the NGA was modeled.³⁹

When the FPC set rates for wholesale natural gas sales at a level below the profit margins of Hope Natural Gas Company (HNCP), the HNCP argued in *Federal Power Commission v. Hope Natural Gas Co.* that the calculations used by the FPC did not properly account for the HNCP's fixed costs and operating costs because the FPC's calculations used an accelerated depreciation schedule.⁴⁰ In its holding, the Court expanded upon *Natural Gas Pipeline Co.* and held that the FPC is not required to use any particular formula in setting rates.⁴¹ Rather, it is only required to ensure that the result of its rate setting is just and reasonable.⁴² Moreover, courts should defer to the agency's determination of just and reasonableness, which thereby creates a heavy burden for those challenging the FPC's ratemaking.⁴³

Subsequently, in *Phillips Petroleum Co. v. Wisconsin*, the FPC obtained regulatory authority to set rates for natural gas sales that occurred in-state, if that natural gas was bound for transmission and resale outside state

34. *Id.* at 578-79.

35. *Id.* at 583.

36. *Id.* at 584.

37. *Id.*

38. Ch. 91, 41 Stat. 456.

39. *Natural Gas Pipeline Co.*, 315 U.S. at 584.

40. 320 U.S. 591, 596-97 (1944).

41. *Id.* at 602.

42. *Id.*

43. *Id.* (“[T]he Commission's order does not become suspect by reason of the fact that it is challenged. It is the product of expert judgment which carries a presumption of validity. And he who would upset the rate order under the Act carries the heavy burden of making a convincing showing that it is invalid because it is unjust and unreasonable in its consequences.”).

lines.⁴⁴ *Phillips Petroleum Co. v. Wisconsin* is interesting because the FPC initially determined that an independent producer of natural gas did not fall within the FPC's ratemaking jurisdiction under the NGA, because the sale of natural gas occurred only as part of the production and gathering of natural gas—activities which the FPC's jurisdiction does not encompass under the NGA.⁴⁵ However, the Supreme Court reasoned that if these sales were not subject to federal regulation, then they must be regulated by the state, which would create an unworkable patchwork of state-by-state regulation—something the NGA expressly sought to eliminate.⁴⁶ The Court also seemed concerned with the fact that Phillips Petroleum Company produced over 50% of the gas purchased by other companies at the point of sale.⁴⁷ Given the fact that the FPC found that it did not have jurisdiction over Phillips' activities, an underlying issue in this holding is the Court's concern over creating an institutionalized energy black market where federal jurisdiction could not reach.

The result of these holdings is that federal regulatory authority over energy markets is exclusive with regards to energy sales in interstate commerce, even if this regulatory authority significantly affects, or even negatively affects, the regulated energy producers. Moreover, this regulatory authority attaches even before the energy crosses state lines as long as the energy is bound for interstate commerce. Although these holdings may seem obvious to scholars today, it is important to note that this regulatory regime was developed in the years following the Great Depression, during World War II, and the Cold War, when national interests required strong federal oversight to ensure a stable market and economy. Energy regulation during this period is almost inherently viewed as an economic endeavor. Although this is still true today, the outlook concerning energy regulation broadened in the 1970s to include a national security component as well.

As it relates to the field of Indian law, the synthesis of these holdings underscores the fact that Congress and the 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. In the series of cases known as the "Marshall Trilogy," for instance, the Supreme Court laid the foundation for congressional plenary power over Indian affairs by holding that Indian tribal governments have legitimate jurisdictional authority over

44. 347 U.S. 672, 685 (1954).

45. *Id.* at 676-77.

46. *Id.* at 681.

47. *Id.* at 675.

tribal matters arising on tribal lands, but that tribal reservations are neither above nor co-equal with states—rather, the relationship between Indians and Indian reservations to the United States federal government is one of hierarchy.⁴⁸ Indian tribal governments are independent, but only insofar as Congress allows them to be.⁴⁹ Once Congress chooses to redefine this relationship (either for the better or the worse from the Indians' perspective), then it can exercise its plenary power even against the Indians' wishes.⁵⁰ Indians can invoke the trust relationship as a shield to undesirable action, but success in this regard requires the Supreme Court to hold that the tribes have a greater interest in the trust relationship than Congress has in its plenary power.

B. Energy Regulation in the Modern Era

The most dramatic shift in national energy policy came in 1973 in the wake of an oil embargo by the Organization of the Petroleum Exporting Countries (OPEC). In response to U.S. foreign policy in the Middle East, OPEC nations undertook two concurrent courses of action to pressure the United States and its allies to withdraw their support from Israel in the Yom Kippur War.⁵¹ First, OPEC nations mutually agreed to a 5% reduction in their oil production in order to inflate the price per barrel of oil in the world market.⁵² Second, OPEC instituted a series of embargoes on the United States and other Western nations who supported the United States or Israel.⁵³ Because the United States was highly dependent upon foreign oil, the embargo thrust the United States into a state of crisis both economically and geopolitically.⁵⁴ In addition to short-term solutions⁵⁵ the United States

48. *See Cherokee Nation v. Georgia*, 30 U.S. (5 Pet.) 1, 16 (1831).

49. *See Worcester v. Georgia*, 31 U.S. (6 Pet.) 515, 561 (1832).

50. *See Johnson v. M'Intosh*, 21 U.S. (8 Wheat.) 543, 572-77 (1823) (discussing federal authority over Indians through the doctrines of discovery and conquest).

51. DANIEL YERGIN, *THE PRIZE: THE EPIC QUEST FOR OIL, MONEY, AND POWER* 586-89 (1993).

52. *Id.* at 607.

53. *Id.* at 607-08.

54. *Id.* at 606-09.

55. The Emergency Petroleum Allocation Act of 1973, Pub. L. No. 93-159, 87 Stat. 627, compelled President Nixon to promulgate regulations to control the price of petroleum. *See id.* § 2(b), 87 Stat. at 628. The Energy Policy and Conservation Act of 1975, Pub. L. No. 94-163, 89 Stat. 871, created the Strategic Petroleum Reserve, which has the capacity to hold as much as 713.5 million barrels of oil. *Strategic Petroleum Reserve*, U.S. DEP'T OF ENERGY, <https://energy.gov/fe/services/petroleum-reserves/strategic-petroleum-reserve> (last visited Apr. 21, 2017).

also undertook long-term policy shifts, which included energy efficiency measures, fuel economy standards, and a ban on U.S. oil exports.⁵⁶

The most significant effect of the embargo was the large-scale reorganization of U.S. energy agencies and policies. First, Congress passed the Federal Energy Administration Act of 1974⁵⁷ which created the Federal Energy Administration (FEA). The FEA was created to “promote the expansion of readily usable energy sources, and to assist in developing policies and plans to meet the energy needs of the Nation.”⁵⁸ However, the FEA was superseded by the Department of Energy (DOE) in 1977 with the passage of the Department of Energy Organization Act.⁵⁹ The Department of Energy Act reorganized and consolidated the FEA and the FPC into the new DOE.⁶⁰ The Department of Energy Act also created two independent sub-agencies within the DOE: the Energy Information Administration (EIA), which is responsible for collecting, analyzing, and disseminating energy data and information,⁶¹ and the Federal Energy Regulatory Commission (FERC),⁶² which assumed the powers vested in the FPC to regulate interstate energy sales and set rates for wholesale energy sales.⁶³

The last significant statute in response to the OPEC oil embargo was the Public Utility Regulatory Policies Act of 1978 (PURPA).⁶⁴ PURPA was enacted to promote energy conservation and efficiency, and to promote domestic energy production.⁶⁵ PURPA expanded the FERC’s authority to include not just large-scale public utilities, but also small-scale “qualifying facilities”⁶⁶ that traditionally faced discriminatory treatment in their energy sales to the grid. PURPA represents a small but significant shift in national energy policy away from a bigger-is-better model toward a recognition that small and distributed energy generating units (EGUs) can fill a niche in the national energy policy to both increase availability and reliability of energy, and to help depress energy prices, especially in underserved markets with low access to energy. Prior to PURPA’s enactment, utilities were scaling back their development of large EGUs because the OPEC oil embargo

56. 89 Stat. 871.

57. Pub. L. No. 93-275, 88 Stat. 96.

58. *Id.* § 2, 88 Stat. at 97 (codified at 15 U.S.C. § 761(a) (2012)).

59. Pub. L. No. 95-91, 91 Stat. 565 (1977).

60. *Id.* § 301, 91 Stat. at 577-78 (codified at 42 U.S.C. § 7151 (2012)).

61. *Id.* § 205, 91 Stat. at 572 (codified at 42 U.S.C. § 7135(a)).

62. *Id.* § 401, 91 Stat. at 582 (codified at 42 U.S.C. § 7171(a)).

63. *See supra* notes 25-47 and accompanying text.

64. Pub. L. No. 95-617, 92 Stat. 3117.

65. *Id.* § 2, 92 Stat. at 3119.

66. *Id.* § 201, 92 Stat. at 3134.

drove the costs of fuel higher, which not only affected the economics of energy sales, but also inflated the costs of expanding and maintaining EGUs and transmission lines.⁶⁷ PURPA addressed this by requiring “wheeling”⁶⁸ by transmission operators so that the small-scale EGUs could enter the market.⁶⁹ This was intended to achieve two results: (1) eliminate discriminatory pricing by transmission providers who gave preference to large-scale EGUs over small-scale EGUs to achieve the ultimate goal of increasing competition in an effort to decrease prices paid by consumers, and (2) alleviate bottlenecks which hindered energy transmission over the grid.⁷⁰

Eventually, as larger numbers of people became connected to long-range interstate electrical grids, U.S. energy policy developed to regulate the transmission of energy itself in addition to the extraction and transportation of energy-generating commodities. It was not until a geopolitically manufactured energy crisis in the 1970s that the United States began to regulate energy usage through mechanisms such as mandated energy efficiency measures. Increases in energy use, coupled with increases in energy efficiency, have allowed large segments of the population to become connected to the electrical grid—arguably one of the greatest national achievements of the last century. However, energy policy in the United States still generally focuses on large-scale development of centralized power stations connected to interstate transmission lines.⁷¹ 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.⁷² Moreover, this

67. See PAUL L. JOSKOW & RICHARD SCHMALENSSEE, *MARKETS FOR POWER: AN ANALYSIS OF ELECTRIC UTILITY DEREGULATION* 223-24 n.12 (1983).

68. “Wheeling” is the transfer of electrical power through transmission and distribution lines from a small-scale qualifying facility to a utility. *Wheeling*, INDEP. ENERGY PRODUCERS ASS’N, <http://www.iepa.com/wheeling.asp> (last visited Apr. 27, 2017). Wheeling is designed to move the least-cost power to consumers in order to keep costs low. *Id.*

69. See Public Utility Regulatory Policies Act of 1978, §§ 203-204, 92 Stat. at 3136-40.

70. Rudy Perkins, Note, *Electricity Deregulation, Environmental Externalities and the Limitations of Price*, 39 B.C. L. REV. 993, 1004-05 (1998) (discussing PURPA’s wheeling requirement at the marginal cost rate of transmitting utilities).

71. See *Frequently Asked Questions: What Is U.S. Electricity Generation by Energy Source?*, U.S. ENERGY INFO. ADMIN., <https://www.eia.gov/tools/faqs/faq.php?id=427&t=3> (last visited July 30, 2017) (stating that 85% of U.S. electricity is generated by utility-scale facilities).

72. See Meg Handley, *Poll: Americans Overwhelmingly Support Alternative Energy*, U.S. NEWS & WORLD REP. (Apr. 1, 2013, 12:01 PM), <http://www.usnews.com/news/articles/2013/04/01/poll-americans-overwhelmingly-support-alternative-energy>; Brendan Moore & Stafford Nichols, *Americans Still Favor Energy Conservation over Production*, GALLUP

model is woefully inadequate to address large areas of Indian Country, which have no access to the national electrical grid.⁷³

The field of energy law can no longer be defined in terms of resource extraction and energy generation alone. Rather, the future of energy law must address a unique nexus between commodity and commerce law, along with environmental and human rights law. Just as the United States has transitioned from a renewable energy economy in the late 1700s and early 1800s to a fossil fuel economy in the mid-1800s, the United States is now refocusing on renewable energy as a vital component of its overall energy policy.⁷⁴ This focus is largely a reaction to the negative effects of climate change, as well as a slow realization that energy security is a national security issue,⁷⁵ not just an economic security issue. The effects this realization will have on renewable energy development and grid connectivity in Indian Country remains to be seen. However, there 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.⁷⁶

C. Modern Energy Policy, and Its Effect on Renewable Energy Development in Indian Country

Providing energy access to rural and isolated areas of Indian Country via power lines is prohibitively expensive⁷⁷ when considering the small number of citizens who would benefit from this investment. As such, the traditional energy model of a large centralized power production facility connected to

(Apr. 2, 2014), <http://www.gallup.com/poll/168176/americans-favor-energy-conservation-production.aspx>; Jeff McMahon, *Americans Want America to Run on Solar and Wind*, FORBES (Jan. 1, 2015, 9:02 AM), <http://www.forbes.com/sites/jeffcmahon/2015/01/01/americans-want-america-to-run-on-solar-and-wind/#6c606a1b3699>; Zac Auter, *In U.S., 73% Now Prioritize Alternative Energy over Oil, Gas*, GALLUP (Mar. 24, 2016), <http://www.gallup.com/poll/190268/prioritize-alternative-energy-oil-gas.aspx>.

73. Laurie Guevara-Stone, *How Some Native Americans Are Embracing Renewable Energy*, CHRISTIAN SCI. MONITOR (July 1, 2014), <http://www.csmonitor.com/Environment/Energy-Voices/2014/0701/How-some-Native-Americans-are-embracing-renewable-energy>.

74. *See supra* note 9.

75. *See* U.S. DEP'T OF DEF., STRATEGIC SUSTAINABILITY PERFORMANCE PLAN: FY 2012, at ES-1 (2012), <http://perma.cc/E8QS-KVJ6>.

76. *See infra* Part III.

77. *See, e.g.*, PETER MEISEN, GLOB. ENERGY NETWORK INST., RENEWABLE ENERGY ON TRIBAL LANDS 7 (2009) <http://www.geni.org/globalenergy/research/renewable-energy-on-tribal-lands/Renewable-Energy-on-Tribal-Lands.pdf> (“[P]ower lines . . . can cost approximately \$60,000 per mile in mountainous terrain.”).

homes through long transmission lines and localized distribution centers is not well suited for the geographic and economic realities of rural Indian Country.

One alternative to increase access to energy in rural and isolated areas of Indian Country is to utilize renewable energy technologies that can be both scalable with regards to utility-sized facilities (i.e., built in parts over time as demand rises in order to keep costs low), as well as distributed with regards to household-sized technologies (i.e., the technology used is not necessarily connected to the grid, but is instead intended to provide energy to the end-user who owns the technology). In many ways, 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.⁷⁸ The presence of such abundant renewable energy resources begs the question of why access to energy in Indian Country is so low. The answer to this question requires a two-part analysis. The first section of this part will discuss the continuing effects from the Allotment era, including the effects of court holdings which diminish tribal sovereignty over rights-of-way through Indian Country. The second section will discuss current renewable energy economic incentives, including state-driven policies, utility rebate programs, and federal tax incentives for renewable energy development.

1. The Continuing Effects of Allotment on Rights-of-Way Over Indian Country

Transmitting energy across the United States is a legally complex task. Although states retain regulatory authority over transmission siting and retail sales within their borders, federal regulators have regulatory authority over interstate transmission, as well as over wholesale rates.⁷⁹ In Indian Country, state regulatory authority often applies only minimally, if at all, since tribes retain sovereignty and jurisdiction over their own lands.⁸⁰

78. OFFICE OF INDIAN ENERGY, U.S. DEP'T OF ENERGY, DEVELOPING CLEAN ENERGY PROJECTS ON TRIBAL LANDS: DATA AND RESOURCES FOR TRIBES 3 (Dec. 2012).

79. See ENVTL. PROT. AGENCY, PUBLIC UTILITY COMMISSION STUDY 5-8 (2011), https://www3.epa.gov/airtoxics/utility/puc_study_march2011.pdf (providing an overview of the core responsibilities and basic structure of the major regulatory agencies overseeing the electric sector).

80. *Worcester v. Georgia*, 31 U.S. (6 Pet.) 515, 520 (1832) (“The Cherokee Nation . . . [occupies] its own territory, with boundaries accurately described, in which the laws of Georgia can have no force”). *But see Nevada v. Hicks*, 533 U.S. 353, 361 (2001) (“Indians' right to make their own laws and be governed by them does not exclude all state

However, tribal sovereignty is not absolute, and must yield to federal oversight with regards to lands held in trust by the federal government.⁸¹ An additional layer of complexity exists regarding tribal grants of rights-of-way (ROWs) through Indian Country 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 due to the federal Indian policy known as allotment.

In 1887, Congress passed the General Allotment Act.⁸² The Act divided reservation land into 160-acre plots that were distributed to the heads of each family, but held in trust, tax-free, by the government for a period of twenty-five years.⁸³ At the end of this period, the title would be conveyed to the family head in fee simple and subject to state taxation.⁸⁴ Any remaining reservation land was then parceled and sold to non-Indian settlers.⁸⁵ The proceeds from these sales were given to the Indian tribe.⁸⁶

Although the goal of allotment was intended to assimilate Indians by discouraging tribalism and encouraging capitalism through privately owned farms, the detrimental effects of allotment have been long-lasting for both individual Indians and tribal governments. Many individual Indians lost their allotted land after the twenty-five-year period because they could not afford the tax payments.⁸⁷ As these parcels were conveyed to non-Indian farmers through forced sales, the remaining Indian landowners could not compete financially with non-Indian farmers whose farms grew through consolidated land purchases.⁸⁸ Many of these Indians were forced to sell their land under terms and at prices that were financially detrimental.⁸⁹

regulatory authority on the reservation. State sovereignty does not end at a reservation's border.”).

81. See COHEN'S HANDBOOK OF FEDERAL INDIAN LAW § 5.04(4), at 418-23 (Nell Jessup Newton et al. eds., 2005) (discussing the federal trust doctrine).

82. Ch. 119, 24 Stat. 388 (codified as amended in scattered sections of 25 U.S.C.) (also known as the Dawes Act). Senator Henry Laurens Dawes (R-Mass.), chairman of the Senate Committee on Indian Affairs, authored and sponsored the bill.

83. *Id.* § 5, 24 Stat. at 389.

84. *Id.*

85. *Id.*

86. *Id.*

87. See Judith V. Royster, *The Legacy of Allotment*, 27 ARIZ. ST. L.J. 1, 12 (1995) (“[M]any [Indians] lost their lands at sheriffs' sales for nonpayment of taxes or other liens.”).

88. *Id.* at 12-13

89. *Id.* at 12.

Tribal governments continue to struggle with the effects of allotment today. Because of these forced sales, non-tribal members hold many parcels of land within the boundaries of Indian reservations in fee simple.⁹⁰ This raises complex jurisdictional questions as to whether the tribe, the state, or the federal government has jurisdiction over certain issues in Indian Country. The best that can be said of these dynamics is that jurisdiction in Indian law cases often depends not only on where the controversy occurs, but also on who the parties are and their relationship to each other.⁹¹

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.

The regulatory background concerning ROWs over Indian Country is more favorable to Indians today than it has historically been. Prior to 1899, Congress authorized ROWs by enacting a specific statute for each individual ROW.⁹² During this time, Congress generally required the entity seeking the ROW over Indian Country to pay just compensation at a cost determined by the Secretary of the Interior (Secretary).⁹³ The trouble with this model, aside from being extremely inefficient, was that the Secretary was not always required to consult with the tribe as to its wishes regarding a ROW.⁹⁴ This changed when Congress passed the Indian Right-of-Way Act of 1948, which allowed the Secretary to grant ROWs over Indian Country

90. See *Jurisdictional Issues: Hearing Before the S. Comm. on Indian Affairs*, 105th Cong. 2 (1998) (statement of Sen. Ben Nighthorse Campbell, Chairman, S. Comm. on Indian Affairs) (stating that twenty-seven tribes in the Seattle area have more land owned by non-Indians within tribal reservation boundaries than owned by tribal members).

91. See COHEN'S HANDBOOK OF FEDERAL INDIAN LAW, *supra* note 81, § 7.02 (discussing tribal jurisdiction).

92. U.S. DEP'T OF ENERGY & U.S. DEP'T OF THE INTERIOR, ENERGY POLICY ACT OF 2005, SECTION 1813 INDIAN LAND RIGHTS-OF-WAY STUDY 30 (2007), http://energy.gov/sites/prod/files/oeprod/DocumentsandMedia/EPAct_1813_Final.pdf [hereinafter ENERGY POLICY ACT STUDY].

93. *Id.*

94. *Id.*

for any company that complied with the terms of the authorizing statute.⁹⁵ The Secretary had already obtained the general authority to grant ROWs over Indian Country through a series of previously enacted statutes.⁹⁶ However, none of these statutes required tribal consultation or consent. The Indian Right-of-Way Act of 1948 made consultation and consent obligatory, as well as streamlined the ROW process by stipulating the actions a company must take to obtain a ROW, thereby removing much of the discretionary nature of this duty from the Secretary.⁹⁷

Although it may be tempting to assume that tribes typically take a “not in my backyard” approach to transmission infrastructure and ROWs in Indian Country, this is not necessarily true.⁹⁸ In some instances, tribes may be eager to negotiate ROWs through their reservations because they see this as a lucrative revenue stream.⁹⁹ However, the issue of cost valuation may drive-up the costs of ROWs over Indian Country, or may deter tribal governments from granting ROWs altogether due to differing valuation calculations between tribal governments and ROW seekers.

In general, payment for ROWs can either be on a per unit of usage basis (i.e., per square foot or per acre), or by an objective appraisal of the affected

95. Indian Right-of-Way Act of 1948, Pub. L. No. 80-407, 62 Stat. 17 (codified as amended at 25 U.S.C. §§ 323–328).

96. See General Rights-of-Way, ch. 374, 30 Stat. 990, 990 (1899) (“[A] right of way . . . for a railway, telegraph and telephone line through any Indian reservation in any State or Territory. . . is hereby granted to any railroad company organized under the laws of the United States”); 25 U.S.C. § 321 (2012) (“The Secretary of the Interior is authorized and empowered to grant a right-of-way in the nature of an easement for the construction, operation, and maintenance of pipe lines for the conveyance of oil and gas through any Indian reservation”); 43 U.S.C.A. § 961 (West, Westlaw through Pub. L. No. 115-22) (“[T]he head of the department having jurisdiction over the lands be, and he hereby is, authorized and empowered, under general regulations to be fixed by him, to grant an easement for rights-of-way . . . for electrical poles and lines for the transmission and distribution of electrical power, and for poles and lines for communication purposes . . .”).

97. 25 U.S.C. § 324 (2012) (“No grant of a right-of-way over and across any lands belonging to a tribe organized under [the Indian Reorganization Act et al.] shall be made without the consent of the proper tribal officials.”).

98. See Ezra Rosser, *Ahistorical Indians and Reservation Resources*, 40 ENVTL. L. 437, 466 (2010) (arguing that the stereotype that Indians are inherently environmentalists is a “mental shortcut” that may be “grounded on some element of truth,” but that does not necessarily hold true for all tribes).

99. See generally James C. Powers, *Will Rights of Way Across Indian Land Drive Up the Cost of Energy?*, RIGHT OF WAY MAG., Mar./Apr. 2006, <https://www.irwaonline.org/eweb/upload/ROW%20Archives%207-05%20thru%207-06/306/indianland.pdf> (warning that Indian tribes’ negotiations regarding rights-of-way may drive up energy prices).

land's worth.¹⁰⁰ Although the per unit calculation seems to be more objective, the trouble with this calculation is that determining the value of a unit of land isolated from its larger parcel may be difficult. For instance, the ROW seeker may prefer to calculate the value of the unit at its pre-development or current use value, whereas the tribe may prefer to calculate the value of the unit at its post-development value since this development will likely alter the value of the surrounding parcel. The appraisal method is equally troublesome because the tribe may prefer to appraise the land as if the entire ROW were one continuous parcel since this appraisal methodology more appropriately captures the value of the entire project. However, the ROW seeker may prefer to appraise the land on a parcel-to-parcel basis, since this valuation methodology is more likely to result in a lower price paid to each individual landowner.

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.¹⁰¹ Tribes argue that a standard value calculation could not account for the value of things like tribal history, culture, or oral traditions that are tied to tribal lands.¹⁰² Moreover, certain areas of tribal lands may be specific to certain tribal practices, or may be the only area where certain biota necessary for religious practices can be found.¹⁰³ ROWs seekers, however, argue that market-based valuations should apply to tribal lands because allowing a tribe to negotiate a ROW under its own terms drives costs to the highest point that the ROW seeker must bear.¹⁰⁴ ROW seekers argue that this inflates the price of energy by imposing those negotiating costs on consumers.¹⁰⁵

Tribal governments may be justifiably concerned about granting ROWs through Indian Country without obtaining adequate compensation because ROWs may impede upon the tribe's inherent sovereignty or tribal jurisdiction.¹⁰⁶ Although tribes generally have civil jurisdiction over events

100. See ENERGY POLICY ACT STUDY, *supra* note 92, at 55-74 (section 9, summarizing various compensation arrangements for rights of way in Indian Country).

101. *Id.* at 30.

102. *Id.* at 30-31.

103. *Id.* at 31.

104. *Id.* at 29-30.

105. *Id.* at 39.

106. See *Comments of the Cheyenne River Sioux Tribe on the Department of Energy Section 1813 Right-of-Way Study*, TRIBAL ENERGY & ENVTL. INFO. CLEARINGHOUSE, ¶ 6 (Apr. 18, 2006), http://teeic.indianaffairs.gov/er/transmission/case/1813/docs/may2006/Comments_Right_of_Way_Study_Res_%20No_166_06_CR.pdf ("No right of way or other business

occurring in Indian Country,¹⁰⁷ “including rights-of-way running through the reservation,”¹⁰⁸ courts have not always agreed that tribal jurisdiction exists where ROWs grant access to non-Indians or non-Indian interests.

In *Strate v. A-1 Contractors*, a case involving a car accident between two non-Indians on a state highway in Indian Country, the Supreme Court held that tribal civil jurisdiction did not extend to disputes between two non-Indians, even though the dispute arose from an incident that took place wholly in Indian Country on land owned in fee simple by the Three Affiliated Tribes.¹⁰⁹ This holding is based on three points of reasoning. First, the Court reasoned that both of the conditions under 25 U.S.C. §§ 324-325 requiring consent of tribal officials and a payment of just compensation were fully met;¹¹⁰ therefore, the Tribe invited non-tribal members onto its reservation by granting a proper ROW. Second, the Court noted that a federally granted ROW provided for the state highway on which the accident occurred.¹¹¹ Since the purpose of the highway was to bring non-tribal members onto the Indian land and the highway was maintained by the state, the Tribe had no jurisdiction over non-member disputes arising from accidents thereon, even though the Tribe owned the land providing for the ROW.¹¹² Finally, the Court noted that when granting the ROW, the Tribe reserved its rights to construct crossings over the ROW, and that these crossings were to be maintained by individual landowners whose land abutted the crossings.¹¹³ Since the Tribe reserved these rights when the ROW was granted, but did not reserve any tribal jurisdiction over the ROW, then the Tribe ceded jurisdictional control over disputes arising from events occurring on the ROW.¹¹⁴

Although 25 U.S.C. § 324 requires consent of tribal officials and just compensation to obtain a proper ROW over Indian land owned in fee simple, the DOI may grant ROWs over lands held in trust for Indian tribes. In *Blackfeet Indian Tribe v. Montana Power Co.*, a case involving a natural gas pipeline that ran across Indian land held in trust, the Blackfeet Tribe

arrangement that allows non-tribal entities or persons to use tribal land should reduce the jurisdiction of the Tribe over its land or over persons and activities occurring on such lands.”).

107. See *Worcester v. Georgia*, 31 U.S. (6 Pet.) 515, 559 (1832).

108. 18 U.S.C. § 1151 (2012).

109. 520 U.S. 438, 442 (1997).

110. *Id.* at 454-55.

111. *Id.* at 442.

112. *Id.*

113. *Id.* at 455.

114. *Id.*

objected to a fifty-year lease issued by the Secretary for a pipeline ROW.¹¹⁵ The Blackfeet Tribe argued that the Secretary's authority under 25 U.S.C. § 321 only permitted twenty-year lease terms for pipelines.¹¹⁶ The Ninth Circuit held that while § 321 only permitted twenty-year lease terms for pipelines, the Secretary had authority to issue fifty-year leases under 25 U.S.C. § 323.¹¹⁷ Therefore, the Secretary was authorized to issue either twenty or fifty-year leases as he saw fit.¹¹⁸

Although placing land in trust gives the Secretary the authority to grant ROWs, it protects the land from condemnation by state public utilities. In *Nebraska Public Power District v. 100.95 Acres of Land*, a case involving the authority of a public utility to condemn tracts of land held in trust by the United States for individual Indians and Indian tribes, the Eighth Circuit held that the utility had the authority under 25 U.S.C. § 357 to condemn allotted land held *by* Indians, but that § 357 does not authorize such authority regarding land held *for* the Indians.¹¹⁹ Section 357 states that “[l]ands allotted in severalty to Indians may be condemned for any public purpose under the laws of the State or Territory where located in the same manner as land owned in fee may be condemned, and the money awarded as damages shall be paid to the allottee.”¹²⁰

The importance of these three holdings to energy development in Indian Country cannot be overstated because these holdings create a scenario where grants of ROWs through Indian Country imply a diminishment of tribal jurisdiction unless a tribe affirmatively reserves its jurisdiction in its ROW agreement. However, even if the tribe reserves its jurisdiction or refuses a ROW altogether, the land could still be condemned under state law as authorized by 25 U.S.C. § 357.¹²¹ Condemnation would overcome any reservation of tribal jurisdiction, but the mere possibility of condemnation may discourage Indians from negotiating too strongly in ROW agreements for fear that the ROW seeker will seek condemnation rather than a ROW agreement. If tribes or individual landowners choose, they can place fee simple land in trust with the federal government so that

115. 838 F.2d 1055, 1056 (9th Cir. 1988), *cert. denied*, 488 U.S. 828 (1988).

116. *Id.*

117. Section 323 states that the Secretary of the Interior “is empowered to grant rights-of-way for all purposes, subject to such conditions as he may prescribe.” 25 U.S.C. § 323 (2012).

118. *Mont. Power Co.*, 838 F.2d at 1059.

119. 719 F.2d 956, 957 (8th Cir. 1983).

120. 25 U.S.C. § 357 (2012).

121. *Id.*

the federal trust obligation overcomes state condemnation. The Secretary then has the authority to issue ROWs under 25 U.S.C. § 323. Although the Secretary is required to act as trustee and consult with the tribe in ROW decisions, the fact that the ROW decision-making power is placed in a non-tribal entity implies a diminishment of sovereignty, especially since the Secretary is only required to adhere to the landowner's wishes "to the maximum extent possible," but may not "unreasonably withhold [the] grant of a right-of-way."¹²²

Even in light of these holdings, there may be greater opportunities to the tribe in ROW negotiations than tribal governments are utilizing. The most critical aspect of ROWs negotiations is their non-standard nature. 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. Tribes have correctly asserted that the freedom to negotiate is a function of their inherent sovereignty, and some tribes have not focused on maximizing payments for ROWs, but rather on utilizing more creative solutions. For instance, the Ute Indian Tribe of the Uintah and Ouray Reservation accepted a \$25,000 contribution to its scholarship fund in addition to monetary compensation for a natural gas pipeline ROW over its reservation.¹²³ Rather than a one-time payment for the ROW itself, the Southern Ute tribe accepted a \$15-per-rod¹²⁴ donation to its tribal scholarship fund. Along with that donation, Southern Ute accepted various investment and joint-venture business opportunities from the Mid-American Pipeline Company in exchange for a ROW for a liquefied natural gas pipeline spanning over seven miles of tribal land.¹²⁵ In total, the scholarship payment reached approximately \$50,000.¹²⁶

While remaining mindful of both the practical and the symbolic importance of sovereignty to Indian tribes, criticism is both warranted and appropriate if tribes forego energy development out of fear that ROWs required for that development may put their inherent sovereignty at risk. As discussed above, lack of access to energy in Indian Country is a significant impediment to income security, educational and employment opportunities, and the overall health and well-being of tribal members.¹²⁷ To the extent that tribes are concerned about threats to their sovereignty or jurisdiction

122. 25 C.F.R. § 169.124(b)-(c) (2016).

123. ENERGY POLICY ACT STUDY, *supra* note 92, at 57.

124. One rod is equal to five feet, six inches.

125. ENERGY POLICY ACT STUDY, *supra* note 92, at 58.

126. *Id.*

127. *See supra* text accompanying notes 10-14.

stemming from ROWs over Indian Country, there is a federal work-around that respects tribal sovereignty while simultaneously protecting Indian trust land from condemnation.¹²⁸

2. State-Driven Renewable Energy Development

Although ROWs are necessary to provide grid-connected energy to Indian Country, the above discussion overlooks the fact that some areas of Indian Country either already have grid connectivity, or are geographically close enough to grid-connected areas to obtain grid connectivity without extensive new ROWs.¹²⁹ Viewing grid-connected areas as separate from the problem of non-grid areas ignores two key facts. First, even though residents in grid-connected areas may have adequate *access* to energy, they might lack the economic resources to fully take advantage of this access.¹³⁰ Moreover, because of the exorbitant costs of extending the grid¹³¹ (which includes the costs associated with obtaining ROWs), even geographic proximity to grid-connected areas does not necessarily translate to grid-connectivity *per se*.¹³² Second, viewing grid-connected areas as separate from non-grid areas considers access to energy in Indian Country as a geographic issue rather than a broader socioeconomic tribal issue.¹³³

A series of tax and utility rebate incentives encourage renewable energy development in the United States by decreasing the costs of investment, development, and operation over time. Utility-scale renewable energy development is largely driven by Renewable Portfolio Standards (RPSs), which are state programs that encourage or require utilities operating within the state to obtain a certain amount of their energy from renewable

128. *See infra* Part III.

129. For the sake of simplicity, this Article will refer to areas with grid connectivity and areas capable of obtaining grid connectivity as “grid-connected” areas. Isolated areas without grid connectivity will be referred to as non-grid areas.

130. *See generally* PATRICK SABOL, FROM POWER TO EMPOWERMENT: PLUGGING LOW INCOME COMMUNITIES INTO THE CLEAN ENERGY ECONOMY 1-2 (2016), https://grounds.well.org/frompower_to_empowerment_wp.pdf (discussing the reasons why for poor Americans’ energy bills are higher than wealthy Americans’ and how these costs can snowball into unmanageable debt).

131. *See* MEISEN, *supra* note 77, at 7.

132. *See id.* at 19 (stating that higher energy costs on reservations hinders access to energy).

133. *See generally id.*

sources.¹³⁴ Typically, RPSs operate on a yearly basis where the renewable energy target is raised over time to encourage development of renewable energy generating units (REGUs). The RPSs vary widely from state-to-state.¹³⁵ While some states make their RPSs mandatory and issue penalties for failure to comply, other states treat their RPSs as voluntary.¹³⁶

Utilities comply with the RPSs by obtaining renewable energy credits (RECs) for every unit of renewable energy they sell.¹³⁷ States, however, define renewable energy sources differently. Thus, some states value solar energy more highly than wind energy, or classify waste-to-energy facilities as renewable energy sources whereas other states do not. For instance, Connecticut's RPS program requires utilities by 2020 to generate 20% of their electricity from "Class I" facilities which exclude "trash-to-energy" facilities.¹³⁸ By contrast, Maryland's RPS requires 25% energy generation from "Tier 1 Renewable Sources" by 2020, which includes "waste-to-energy" facilities.¹³⁹ Consequently, prices vary widely between state REC markets and resource types.¹⁴⁰

Additionally, some states require the RECs to be "bundled" to the unit of renewable energy, while other states allow the RECs to be "unbundled" from the unit of renewable energy.¹⁴¹ Bundled RECs encourage renewable

134. MEREDITH WINGATE ET AL., COMM'N FOR ENVTL. COOPERATION, FOSTERING RENEWABLE ELECTRICITY MARKETS IN NORTH AMERICA 11-12 (2007), <https://www.conservaiongateway.org/Documents/Fostering-RE-MarketsinNA-en.pdf>.

135. *Compare* HAW. REV. STAT. § 269-92 (2015) (requiring 40% of each electric utility company's net electricity sales to be from renewable sources by December 31, 2030), *with* IND. CODE ANN. § 8-1-37-12 (LexisNexis 2012) (requiring that 10% of utility energy sales come from renewable energy sources to qualify for the financial incentives set out in the state's renewable portfolio standard).

136. *Most States Have Renewable Portfolio Standards*, U.S. ENERGY INFO. ADMIN. (Feb. 3, 2012), <https://www.eia.gov/todayinenergy/detail.cfm?id=4850>.

137. *Renewable Energy Standards*, SEIA: SOLAR ENERGY INDUSTRIES ASS'N, <http://www.seia.org/policy/renewable-energy-deployment/renewable-energy-standards> (last visited Aug. 24, 2017).

138. *Renewable Energy Portfolio Standard*, DSIRE, <http://programs.dsireusa.org/system/program/detail/1085><http://programs.dsireusa.org/system/program/detail/195> (last visited Aug. 3, 2017).

139. *Id.*

140. Brook Detterman et al., *United States*, in ENVIRONMENT & CLIMATE REGULATION 194, 199 (Carlos de Miguel Perales et al. eds., 2015) ("According to the DOE's Green Power Network, REC prices range from about US\$1 (in Texas and Washington, DC) to about US\$50 (in Massachusetts and several other states) [and] Solar RECs (SRECs) range from about US\$50 to a high of nearly US\$500.").

141. U.S. P'SHIP FOR RENEWABLE ENERGY FIN., RAMPING UP RENEWABLES: LEVERAGING STATE RPS PROGRAMS AMID UNCERTAIN FEDERAL SUPPORT 25 (2012), <http://uspref.org/wp->

energy generation close to the source of the energy usage, whereas unbundled RECs can be traded across state lines.¹⁴² Bundled RECs are preferable for states that want to encourage in-state development of REGUs whereas unbundled RECs are ideal for states where energy usage is much lower than energy supply.¹⁴³

Financial incentives for retail customers take the form of net metering or feed-in tariffs. Net metering and feed-in tariffs allow retail customers with small-scale grid-connected REGUs to sell the energy they generate to their utility.¹⁴⁴ Although the programs are similar, there are slight differences between the two.

Net metering, which is required under PURPA, allows a customer to sell the energy they generate to their utility at the retail price the customer would otherwise pay.¹⁴⁵ In essence, net metering allows customers' grid-connected meters to flow backwards so that customers can either deduct the energy they generate from their utility bill, or credit this energy to future bills. Feed-in tariffs, however, require a pre-arranged purchase agreement with customers' utilities which guarantee that the utility will purchase any energy generated by the customer at a price above the retail rate.¹⁴⁶ Although feed-in tariffs are financially ideal for customers because they guarantee a return on investment, only five states require feed-in tariffs, and only a small handful of utilities provide feed-in tariffs.¹⁴⁷

The trouble with net metering and feed-in tariffs, as they relate to Indian Country, is that both programs require grid connectivity in order to take advantage of the financial incentive of small-scale REGUs. As such, these programs provide no benefit to non-grid areas of Indian Country. In addition to net metering and feed-in tariffs, there are two federal tax

content/uploads/2012/06/Ramping-up-Renewables-Leveraging-State-RPS-Programs-amid-Uncertain-Federal-Support-US-PREF-White-Paper1.pdf.

142. *Id.*

143. *Cf. id.*

144. Although net metering and feed-in tariffs can apply to energy generated from wind turbines as well as photovoltaic solar cells, most net metering and feed-in tariffs involve energy generated from photovoltaic solar cells since these are easy to deploy on residential and commercial rooftops as compared to the space required for a small-scale wind turbine.

145. 16 U.S.C. § 2621(d)(11) (2012).

146. *Feed-in Tariff: A Policy Tool Encouraging Deployment of Renewable Electricity Technologies*, U.S. ENERGY INFO. ADMIN., (May 30, 2013), <https://www.eia.gov/todayinenergy/detail.cfm?id=11471>.

147. *Feed-in Tariffs and Similar Programs*, U.S. ENERGY INFO. ADMIN. (June 4, 2013), https://www.eia.gov/electricity/policies/provider_programs.php.

incentives for REGUs known as the Investment Tax Credit (ITC)¹⁴⁸ and the Production Tax Credit (PTC)¹⁴⁹ that provide additional incentives to develop REGUs. Like net metering and feed-in tariffs, the ITC and the PTC are similar, with some key differences.

The ITC provides a phased-down rebate schedule whereby any individual or entity that pays federal income tax receives a 30% cost credit on their federal income tax for every dollar of investment they make in renewable energy projects once those projects come online.¹⁵⁰ For solar projects, the 30% cost credit applies every year until 2019 as long as the solar cell has no less than a 500-watt capacity, and a 30% efficiency rate.¹⁵¹ The credit drops to 26% in 2020, 22% in 2021, and 10% thereafter.¹⁵² Investments in qualifying wind projects receive a 30% cost credit in 2016 as long as the turbine has a minimum 100 kW capacity.¹⁵³ This credit drops to 24% in 2017, 18% in 2018, and 12% in 2019.¹⁵⁴

The PTC provides a tax credit of \$0.023/kWh for qualifying wind facilities and a credit of \$0.012/kWh for other eligible REGUs, including solar cells.¹⁵⁵ The credit is reduced by 20% in 2017, 40% in 2018, and 60% in 2019.¹⁵⁶

With regards to encouraging REGU development in Indian Country, the PTC and the ITC suffer from several significant problems. First, because tribal governments are sovereign entities, they are not subject to federal taxation, and therefore do not qualify for federal tax breaks. Thus, any renewable energy project owned by the tribal government does not qualify for either the PTC or the ITC. Second, the PTC requires grid-connectivity since the credit only applies once the energy is “sold by the taxpayer to an unrelated person during the taxable year.”¹⁵⁷ As such, the PTC does not incentivize REGU development in non-grid areas of Indian Country. Third, the PTC requires that the person or entity receiving the tax benefit owns the

148. 26 U.S.C.A. § 48 (West, Westlaw through Pub. L. No. 115-22).

149. *Id.* § 45.

150. *Business Energy Investment Tax Credit (ITC)*, U.S. DEP'T OF ENERGY, <http://energy.gov/savings/business-energy-investment-tax-credit-itc> (last visited Mar. 8, 2017).

151. *Id.*

152. *Id.*

153. *Id.*

154. *Id.*

155. *Renewable Energy Production Tax Credit*, U.S. DEP'T OF ENERGY, <http://energy.gov/savings/renewable-electricity-production-tax-credit-ptc> (last visited Mar. 8, 2017).

156. *Id.*

157. 26 U.S.C.A. § 45(a)(2)(B) (West, Westlaw through Pub. L. No. 115-22).

REGU, a dilemma that will be discussed below in Part III.¹⁵⁸ Fourth, both programs require the taxpayer to have the capital upfront to spend on the REGU, or to have access to cost-effective financing to fund the REGU development.¹⁵⁹ Due to economies of scale, this may be less of an issue for utility-scale REGUs than it is for small-scale, distributed REGUs in non-grid areas.¹⁶⁰

The incentives discussed above provide ample economic opportunities to individual Indian landowners in grid-connected areas since these landowners can utilize any of the tax or rebate programs to offset the costs of renewable energy development on their fee simple land. These opportunities are dependent upon the Indians' ability to fund the upfront costs of investing in REGUs, which may not be possible for many Indians, even in grid-connected areas.¹⁶¹ Unfortunately, the economic incentives discussed above do not appreciably improve access to energy in non-grid areas of Indian Country since Indians in these areas must either pay for their own REGUs and rely upon the ITC to deflate this cost, or must obtain a REGU from an organization like the NativeSUN Hopi Solar Electric Enterprise.¹⁶²

Rather than relying on individual Indian landowners to pay for their own distributed REGU technologies and take advantage of the tax and rebate incentives to improve access to energy, tribal governments can develop utility-scale renewable energy projects. Unlike individual landowners, however, tribal governments will not be eligible for the PTC because tribal governments are not subject to federal income tax.¹⁶³ Although the inability to claim federal renewable energy tax credits hinders tribal renewable energy development, it is important to note that this, in and of itself, does not put tribes at a disadvantage compared to other sovereigns since

158. *Id.* § 45(d).

159. *See Barriers to Renewable Energy Technologies*, UNION OF CONCERNED SCIENTISTS, http://www.ucsusa.org/clean_energy/smart-energy-solutions/increase-renewables/barriers-to-renewable-energy.html (last visited Aug. 6, 2017).

160. *Id.* This same issue also affects grid-connected property owners who wish to take advantage of the ITC, net metering, or feed-in tariff programs.

161. Notably, this problem is not indicative to Indian landowners. Purchasing and deploying REGUs is a substantial cost that hinders REGU development throughout the United States.

162. *See infra* Section IV.A.

163. *Income Tax Guidelines FAQ #6 Answer: Are Federal Recognized Tribes Subject to Income Taxes?*, INTERNAL REVENUE SERV., <https://www.irs.gov/government-entities/indian-tribal-governments/itg-faq-6-answer-are-federally-recognized-tribes-subject-to-income-taxes> (last visited Aug. 8, 2017).

renewable energy development is commonly undertaken by private investors as opposed to being state-owned and operated.¹⁶⁴ Thus, although tribal governments cannot take advantage of the PTC or the ITC, neither can state governments.

Needless to say, tax and rebate incentives are critically important to the development of REGUs in the United States. These programs have driven much of the renewable energy development that has occurred in the last decade and will continue to be a driving force in making renewable energy cost-competitive with fossil fuels. Unfortunately, those Indians in the greatest need of expanded access to energy cannot afford the upfront investment costs for the REGU technologies, so the tax and rebate incentives are too little too late to benefit them. With an abundance of renewable energy resources in Indian Country, combined with low access to energy among Indian populations, the need for Indian-specific tax and rebate programs is clear. These programs would not only be beneficial to Indian populations, but non-Indian populations would also benefit from renewable energy generation that does not increase pollution in the biosphere. In essence, 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.

III. Tribal Energy Resource Agreements: A Solution Wrapped in a Problem

A. Introduction and Overview

In 2005, Congress passed the Energy Policy Act (EPAct), which, among other things, contained provisions intended to promote energy extraction and development in Indian Country.¹⁶⁵ Title V of the EPAct is known as the Indian Tribal Energy Development and Self-Determination Act (ITEDSA).¹⁶⁶ Prior to the ITEDSA's enactment, tribal energy development projects were regulated under any number of statutes, such as the Indian

164. See Daniel Gross, *Going Private: To Undertake a Massively Ambitious Energy Project, You Don't Need the Government Anymore*, SLATE (Oct. 1, 2014), http://www.slate.com/articles/business/moneybox/2014/10/renewable_energy_projects_the_private_sector_not_the_government_is_funding.htmlhttp://www.slate.com/articles/business/moneybox/2014/10/renewable_energy_projects_the_private_sector_not_the_government_is_funding.html (stating that private companies routinely back large-scale renewable energy projects on their own).

165. Energy Policy Act of 2005, Pub. L. No. 109-58, 119 Stat. 594.

166. *Id.* tit. V, 119 Stat. at 763-79.

Mineral Leasing Act, or the Indian Mineral Development Act.¹⁶⁷ There are two main problems with this regulatory structure: (1) sometimes two or more different statutes can regulate the same resource on tribal lands, therefore, determining which statute is the most beneficial to the tribal interests is costly, time consuming, and difficult; (2) regardless of the statute the tribe chooses to invoke for regulating the resource development, the tribes are required to seek development approval from the Secretary for all projects on lands held in trust by the federal government.

The ITEDSA creates a mechanism through which tribes can escape DOI oversight and enter into long-term leases or ROW agreements for energy development under what is known as a Tribal Energy Resource Agreement (TERA).¹⁶⁸ However, the process of creating a TERA and gaining Secretarial approval for projects under the TERA is, itself, costly, time-consuming, and difficult.¹⁶⁹ If the tribe meets certain statutory mandates, then the Secretary is obligated to approve the TERA and release the tribe from federal oversight regarding all actions under the TERA.¹⁷⁰ In this regard, TERAs are similar to other statutory mechanisms designed to streamline or remove federal oversight.¹⁷¹

TERAs address two of the problems outlined in Section II.A of this Article. First, by placing tribally owned land in trust, the state is precluded from condemning land for ROWs, but the tribe is still able to retain full control of issuing leases or ROWs over that land by entering into a TERA. TERAs prohibit the Secretary from approving leases or ROWs that the tribe does not agree with since the TERA grants the tribe lease-approving authority for the TERA resource.¹⁷² Because TERAs are only project-specific, however, the Secretary still retains authority to issue ROWs over any trust land not subject to the TERA.¹⁷³ To protect trust land from the possibility of ROWs, a tribe must create a development project that affects

167. See *infra* notes 184-85 and accompanying text.

168. Energy Policy Act of 2005, sec. 503, § 2604(e), 119 Stat. at 770-76.

169. See 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) (discussing the process to obtain TERA approval).

170. See Energy Policy Act of 2005, sec. 503, § 2604(e)(2), 119 Stat. at 770.

171. For instance, section 404 of the Clean Water Act allows states, under their delegated authority, to issue general discharge permits rather than individual discharge permits that must comply with substantive criteria and an individualized application. 33 U.S.C. § 1344(e)(1) (2012). The benefit of general permits is obvious—it decreases costs while promoting the efficient development of projects.

172. See Energy Policy Act of 2005, sec. 503, § 2604(a)-(b), 119 Stat. at 769-70.

173. 25 U.S.C. 323 (2012).

that land and enter into a TERA for that project.¹⁷⁴ Of course, this may run counter to what the tribe actually wants to do with the land it places in trust; perhaps a tribe may simply want to preserve the land as is. Therefore, TERAs, while beneficial to development, are not roadblocks to all federal oversight. For tribes that are focused on infrastructure development and must seek Secretarial approval frequently, a TERA provides the tribe more autonomy to pursue development in a self-actualizing manner.

Third, TERAs affirm tribal sovereignty and jurisdiction since it is the tribal government that approves leases or ROWs for TERA projects rather than the DOI.¹⁷⁵ The tribe would still be required to affirmatively assert its jurisdiction in the lease or ROW agreement with the non-tribal entity as per *Strate*.¹⁷⁶ But, a TERA removes the federal middle-man in tribal development projects, at least insofar as the tribe assumes project oversight after the TERA is approved. TERAs also affirm tribal sovereignty in that the existence of a TERA may help a tribe assert its jurisdiction over disputes arising from a TERA project. Because TERAs exist under the Tribal Energy Development and Self-Determination Act, TERAs are, by their very nature, an affirmation of tribal self-governance and self-determination—an affirmation that the DOI has sanctioned and approved. Because energy development is an inherently economic activity, the tribe can argue that the DOI-approved TERA project is vital to the tribe's economic vitality, thereby requiring tribal jurisdiction.¹⁷⁷

B. TERAs: The Solution

As a matter of federal policy toward Indians and Indian tribal governments, TERAs represent Congress' intent to shift away from

174. See Energy Policy Act of 2005, sec. 503, § 2604(a)(2), 119 Stat. at 769.

175. Letter from Joe Shirley, Jr., President, Navajo Nation, to Sen. Ben Nighthorse Campbell 1 (Apr. 8, 2003), in *Tribal Energy Self-Sufficiency Act and the Native American Energy Development and Self-Determination Act: Hearing on S. 424 and S. 522 Before the S. Comm. on Indian Aff.*, 118th Cong. 108 (2003), <https://www.gpo.gov/fdsys/pkg/CHRG-108shrg86005/pdf/CHRG-108shrg86005.pdf> ("Generally speaking, the concept of turning tribal resource management over to tribes while 'eliminating' federal oversight would seem to be a very simple infusion of sovereignty into the current statutory and regulatory scheme governing tribal resource development. The Navajo Nation certainly supports this general concept.").

176. See *supra* notes 109-14 and accompanying text.

177. See *Montana v. United States*, 450 U.S. 544, 566 (1981) ("A tribe may [] retain 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.").

paternalistic tribal development statutes toward a broader affirmation of tribal self-determination regarding Indian development projects. For example, the Indian Mineral Leasing Act (IMLA) allows a tribe to enter into leases with non-tribal entities for the extraction of minerals, as long as the Secretary approves the lease.¹⁷⁸ Additionally, the Indian Mineral Development Act (IMDA) allows for both negotiated leases as under the IMLA, as well as joint venture agreements with non-tribal entities, subject also to Secretarial approval.¹⁷⁹ The fact that federal paternalism permeates all Indian energy development statutes is a problem not just because it diminishes tribal sovereignty, but also because federal paternalism imposes an additional and costly layer of bureaucracy onto tribal development projects that often results in delays that cost tribal governments and non-tribal investors time and money. In many ways, TERAs are an ideal solution to this bureaucracy.¹⁸⁰

One reason why TERAs are an ideal solution is that TERAs apply to all energy resource development,¹⁸¹ whereas previous energy development statutes are ambiguous as to whether or not they include development of renewable energy resources.¹⁸² Also, the term lengths for leases under a TERA are standardized at a maximum of thirty years for renewable development and ten years for oil and gas development.¹⁸³ These terms are sufficiently lengthy for non-tribal developers to yield a return on investment. Furthermore, since the tribe, rather than the DOI, retains the right of renewal, TERAs encourage cooperation between the two parties, rather than communication through DOI officials. Perhaps most importantly, TERAs allow the tribe to assume an active role in energy development on its own lands, rather than acting merely as a passive lessor or seller.¹⁸⁴ The ITEDSA regulations allow a tribe to enter into a “business

178. Indian Mineral Leasing Act of 1938, 25 U.S.C. § 396a (2012).

179. Indian Mineral Development Act, Pub. L. No. 97-382, 96 Stat. 1938 (codified as amended at 25 U.S.C. § 2102(a) (2012)).

180. See Royster, *supra* note 1, at 117-19 (discussing four ways in which TERAs address delays caused by the federal trust obligation).

181. 25 C.F.R. § 224.30 (2015) (“Energy Resources means both renewable and nonrenewable energy sources, including, but not limited to, natural gas, oil, uranium, coal, nuclear, wind, solar, geothermal, biomass, and hydrologic resources.”).

182. Royster, *supra* note 1, at 97 (noting that the Indian Mineral Development Act discusses oil, natural gas, uranium, coal, geothermal, and other energy or non-energy mineral resources (25 U.S.C. § 2102(a)), but that the statute does not clarify the breadth of the “other energy or non-energy mineral resources”).

183. *Id.* at 117.

184. *Id.* at 118.

agreement” for “any permit, contract, joint venture, option, or other agreement that furthers any activity related to locating, producing, transporting, or marketing energy resources on tribal land.”¹⁸⁵ The breadth of this definition allows a tribe to enter into nearly any joint venture with a non-tribal entity as long as that joint venture is pursuant to energy development on tribal land.

C. TERAs: The Problem

Although TERAs, in theory, provide a solution to the jurisdictional issues affecting REGU development in Indian Country, in practice TERAs may actually impede REGU development in Indian Country. Before a tribe can enter into a TERA, the tribal government must meet the stringent mandates described in 25 C.F.R. § 224.63 in order to qualify for a TERA.¹⁸⁶ One of these mandates is a requirement that the tribe implement some type of tribal “environmental review process.”¹⁸⁷ The environmental review process must identify all significant environmental effects of the project, identify mitigation measures, provide a public notice and comment period, and require a tribal response to substantive comments.¹⁸⁸

Notably, the tribal environmental review process does not supplant the National Environmental Policy Act (NEPA).¹⁸⁹ In fact, the environmental review process may actually be more stringent than the NEPA in two regards. First, many of the tribal environmental review requirements are duplicative of the NEPA, essentially requiring the tribe to undergo some parts of the NEPA process twice.¹⁹⁰ Second, the NEPA and the tribal environmental review process apply equally to the tribe and actually place tribal sovereignty below state sovereignty in certain regards.¹⁹¹ For instance, if a state chooses to approve a wind farm, the state is not required

185. 25 C.F.R. § 224.30(1) (2008).

186. 25 C.F.R. § 224.63 (2012).

187. *Id.* § 224.63(c).

188. *Id.* § 224.63(c)(1)-(4).

189. 25 U.S.C. § 3504(f)(1) (2012) (“Nothing in this section affects the application of . . . any Federal environmental law.”).

190. Elizabeth Ann Kronk, *Tribal Energy Resource Agreements: The Unintended “Great Mischief for Indian Energy Development” and the Resulting Need for Reform*, 29 PACE ENVTL. L. REV. 811, 817 (2012) (discussing the aspects of the tribal environmental review process that mirror NEPA).

191. Scot W. Anderson, *The Indian Tribal Energy Development and Self-Determination Act of 2005: Opportunities for Cooperative Ventures* 8-9 & n.36 (presentation at Special Institute: Natural Resource Development in Indian Country, Rocky Mountain Mineral Law Institute, Nov. 10-11, 2005), <https://www.dgslaw.com/images/materials/670412.pdf>.

to undergo a NEPA analysis unless there is some major federal action (i.e., federal grants, taking of endangered species, etc.). But, if a tribe chooses to develop a wind farm on trust land under a TERA, the tribe is immediately at a disadvantage compared to the state by triggering the NEPA by virtue of requiring Secretarial approval. The tribe is also placed at a further disadvantage by virtue of the tribal environmental review requirement under a TERA.

The distinction between the tribal environmental review process under a TERA and the Environmental Assessment (EA) or Environmental Impact Statement (EIS) requirement under the NEPA is critical. The tribal environmental review process is a review of the TERA project itself (i.e., the proposed wind farm).¹⁹² That review does not occur until after the Secretary grants the TERA, but before development on the project can commence.¹⁹³ The NEPA analysis, on the other hand, is required for any “major Federal actions significantly affecting the quality of the human environment.”¹⁹⁴ The NEPA is triggered during the approval process of the TERA by the Secretary. Therefore, the NEPA would require the DOI to conduct an EA or EIS in order for the Secretary to approve a TERA for a tribe to develop its wind resources; but, a TERA requires a tribal environmental review of the project itself. The tribe incurs the costs of the TERA-required tribal environmental review process, and the DOI incurs the costs associated with the NEPA analysis. But the tribe also incurs costs associated with the NEPA analysis by virtue of having to wait for the EA or EIS to be completed. The complexity and dual costs of the NEPA analysis and the TERA-required tribal environmental review process exemplify one of the most significant problems with TERAs: many tribes may not be able to justify the cost-risk calculations and the cost-benefit returns of the TERA process.¹⁹⁵

192. See Royster, *supra* note 169, at 1090.

193. See *id.* at 1090-91 (“NEPA . . . applies to federal approvals of tribal resource development leases and agreements.”).

194. 42 U.S.C. § 4332(C) (2012).

195. Royster, *supra* note 1, at 119-20 (“The front-end costs of time, money, and staffing to develop a TERA and shepherd it through the approval process are substantial, if not prohibitive. The back-end costs of providing an environmental review process and addressing public input into tribal decisions and compliance are similarly substantial. These costs mean that ITEDSA may ultimately be useful to only a small cadre of tribes with considerable energy resources to develop. For a tribe seeking to place a few solar collectors on tribal land or harvest forest residues as biomass, however, the TERA process may be more of a barrier than an opportunity.”).

The ITEDSA attempts to address the costs associated with federal review of a TERA application by mandating a 270-day approval period for TERAs.¹⁹⁶ TERA regulations, however, allow for an extension of this requirement if both the Secretary and the tribe agree to such an extension.¹⁹⁷ This raises two interesting questions that have not yet been answered. First, what happens if the tribe does not consent to an extension—i.e., if a tribe submits a TERA for a utility-scale wind or solar facility on tribal trust land, but the Secretary requests an extension of the 270-day review period which the tribe denies, does the tribe have a cause of action against the Secretary for which it can recover damages? Second, can the tribe compel the Secretary to complete the TERA process within the statutorily mandated 270-day period in order to mitigate any financial losses stemming from an extension?

Although there is no way to know for sure, the answer to the second question is almost certainly no because there is no statutorily mandated timeframe in which to complete a NEPA analysis.¹⁹⁸ Absent some contractually obligated duty to complete a NEPA analysis in a certain timeframe, courts generally do not find agencies to have violated the NEPA simply because the NEPA analysis requires an extensive amount of time to complete.¹⁹⁹ The standard time period to complete a NEPA analysis varies from three months or less to one year.²⁰⁰ This timeframe is fluid, and will almost certainly be greater if an EIS is required.²⁰¹ Moreover, a suit for injunctive relief could not commence until after the 270-day review period

196. 25 U.S.C. § 3504(e)(2)(A) (2012) (“Not later than 270 days after the date on which the Secretary receives a tribal energy resource agreement from an Indian tribe . . . the Secretary shall approve or disapprove the tribal energy resource agreement.”).

197. 25 C.F.R. § 224.56 (2015) (“The Director’s receipt of a tribe’s complete application begins a 270-day statutorily mandated period during which the Secretary must approve or disapprove a proposed TERA. With the consent of the tribe, the Secretary may extend the 270-day period for making a decision.”).

198. 40 C.F.R. § 1501.8 (2015) (stating that CEQ has not set “inflexible” time limits, but instead “encourages” agencies to set time limits appropriate for individual actions).

199. *Cf.* *Coal. on W. Valley Nuclear Wastes v. Bodman*, 625 F. Supp. 2d 109, 120 (W.D.N.Y. 2007), *aff’d*, 592 F.3d 306 (2d Cir. 2009) (stating Plaintiffs did not show that DOE’s two-step NEPA analysis violated DOE’s contractual obligation with Plaintiffs to complete the NEPA analysis without undue delay and in an orderly fashion).

200. *NEPA Web Guide: CEQ 40 FAQs, Questions 35-40*, BUREAU OF LAND MGMT., http://web.archive.org/web/20160302222736/http://www.blm.gov:80/wo/st/en/prog/planning/nepa/webguide/40_most_asked_questions/questions_30-40.html (Question 35, “Time Required for the NEPA Process”) (last visited Apr. 21, 2017).

201. *Id.*

has run, so even if a court would hear such a suit, it is unlikely that the redressability component of standing could be met.

The answer to the first question is much more uncertain. If the Secretary requests an extension of the statutorily mandated 270-day review period, but the tribe does not consent, then the Secretary is required to fulfill his or her statutory obligations.²⁰² However, the ITEDSA states that

[T]he 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 under paragraph (2) [relating to the 270-day approval requirement].²⁰³

Paragraph 2(A) states that “[n]ot later than 270 days after the date on which the Secretary receives a tribal energy resource agreement from an Indian tribe . . . the Secretary shall approve or disapprove the tribal energy resource agreement.”²⁰⁴ It is clear from the statute that the Secretary is absolved from liability after the TERA is approved, but the statute is silent as to whether any liability attaches to the Secretary upon receipt of a TERA and failure to approve or disapprove within the 270-day timeframe. The Indian law canons of construction may hue in the tribes’ favor in this regard, but a general rule of administrative law is that agency decision-making is not subject to judicial review until that decision becomes a final agency action.²⁰⁵ If the Secretary does not meet this 270-day mandate, then the tribe would have to show that the Secretary unreasonably delayed deciding on the TERA application,²⁰⁶ or otherwise undertook some agency

202. 25 U.S.C. § 3504(e)(2) (2012).

203. *Id.* § 3504(e)(6)(D)(ii).

204. *Id.* § 3504(e)(2)(A).

205. *Port of Bos. Marine Terminal Ass'n v. Rederiaktiebolaget Transatlantic*, 400 U.S. 62, 71 (1970) (“[T]he relevant considerations in determining finality are whether the process of administrative decisionmaking has reached a stage where judicial review will not disrupt the orderly process of adjudication and whether rights or obligations have been determined or legal consequences will flow from the agency action.”); *Gulf Oil Corp. v. U.S. Dep't of Energy*, 663 F.2d 296, 310 n.80 (D.C. Cir. 1981) (“We have previously defined an order as ‘final’ for purposes of judicial review when it ‘impose(s) an obligation, den(ies) a right, or fix(es) some legal relationship as a consummation of the administrative process.’”) (quoting *Fidelity Television v. FCC*, 502 F.2d 443, 448 (D.C. Cir. 1974)).

206. Administrative Procedure Act § 706(1)-(2)(a), Pub. L. 89-554, 80 Stat. 378, 393 (codified as 5 U.S.C. § 706(1)-(2)(a) (2012)).

action that was arbitrary or capricious. The likelihood of success in such an argument, however, is minimal at best.

The final problem associated with a TERA is that each TERA must undergo periodic review by the Secretary who may disapprove²⁰⁷ the TERA if he or she believes that the trust asset managed under the TERA is in “imminent jeopardy.”²⁰⁸ The Secretary’s ability to continually review and even disapprove a TERA is curious given the waiver of liability in § 3504.²⁰⁹ Essentially, § 3504 creates a loophole where the federal government retains oversight authority of tribal resource management even after a TERA is implemented,²¹⁰ but the government absolves itself of any liability once the TERA is approved.²¹¹ The fact that no tribe has yet entered into a TERA indicates the ITEDSA’s failure to promote energy development in Indian Country, specifically with regards to renewable energy.

At the least, TERAs are *an* option available to tribes concerned about sovereignty and jurisdiction, but TERAs are far from an *ideal* option for tribes. Congress’s inclusion of the ITEDSA in the Energy Policy Act of 2005 was a positive sign for both Indian tribes and renewable energy businesses. However, it is troubling that no tribe has submitted or been approved for a TERA, especially since TERAs currently represent the greatest opportunity for tribal self-determination regarding energy development.²¹² Even with the TERA structure in place, energy development in Indian Country proceeds under the traditional model of tribal leases subject to Secretarial approval. This not only diminishes tribal sovereignty, but also creates development delays that are costly both for tribal governments and for non-tribal entities wishing to invest in Indian energy resources.

IV. Indian Energy Development Projects

Despite all the negative statistics, lack of funding, and inadequate federal policies surrounding renewable energy development in Indian Country, some tribal governments, Indian corporations, and nonprofit entities have

207. 25 C.F.R. §§ 224.63(b) (2015) (“[T]he Secretary, upon a finding of imminent jeopardy to a physical trust asset, [may] take actions the Secretary determines to be necessary to protect the asset, including reassumption under subparts F and G of this part.”).

208. *Id.* § 224.63(a)-(b).

209. 25 U.S.C. § 3504(e)(6)(A)(ii)(D)(ii).

210. *Id.* § 3504(e)(7)(A)-(D).

211. *Id.* § 3504(e)(6)(A)(ii)(D)(ii).

212. *See* Kronk, *supra* note 190, at 830-34.

succeeded in meeting the needs of a small number of tribal members who do not have adequate access to energy. These initiatives range in size, scope, and goal objectives, but each is uniquely tailored to address a discrete energy issue in Indian Country.

A. Hopi NativeSUN Solar Electric Enterprise

The Hopi NativeSUN Solar Electric Enterprise (SEE) addresses the difficulties of access to energy in non-grid areas by issuing low-interest revolving loans to non-grid property owners so that they can purchase and install REGU units on their property.²¹³ Participants receive a maximum loan amount of \$7,000 for forty-eight months at an 8% interest rate with which they purchase the photovoltaic solar cells and storage batteries.²¹⁴ To date, SEE has installed more than 300 units on homes in non-grid areas of Indian Country.²¹⁵ SEE should be considered a success because it fills a gap that is not adequately addressed by the market and provides access to energy to property owners who otherwise do not have it.

B. Navajo Tribal Utility Authority

The Navajo Tribal Utility Authority (NTUA) rents hybrid REGUs that consist of an 880-watt solar array, a 400-watt wind turbine, and a battery bank to tribal members in non-grid areas.²¹⁶ To date, the NTUA has rented approximately 263 of these REGUs at a cost of approximately \$75 per month.²¹⁷ The rental costs pay for the NTUA maintenance of the REGUs and installation training for its personnel. Although the program is funded in part by federal grant money from the Department of Energy, the NTUA's program suffers the same barriers to entry and budget constraints as that of SEE.²¹⁸ Like SEE, the NTUA program is an Indian-driven solution to a

213. SALLY MACADAMS, COMMUNITY POWER AGENCY, TOWARDS ENERGY SOVEREIGNTY: CASE STUDIES FROM NORTH AMERICAN FIRST NATIONS 8-10 (June 2016), <http://cpagency.org.au/wp-content/uploads/2016/07/Towards-Energy-Sovereignty-First-Nations-case-studies-from-North-America.pdf>.

214. *Id.*

215. Guevara-Stone, *supra* note 73.

216. *Wind Turbines Power Remote Navajo Homesteads*, NAWIG NEWS: Q. NEWSL. OF THE NATIVE AM. WIND INTEREST GROUP (Nat'l Renewable Energy Lab., Golden, Colo.), Spring 2004, at 1, <http://www.ntua.com/solar/nawig-PV.pdf>.

217. Guevara-Stone, *supra* note 73. However, even those residents who can afford this price are not eligible for the PTC or ITC because they do not own the REGU.

218. See Ibbey Caputo, *Solar Power Makes Electricity More Accessible on Navajo Reservation*, NAT'L PUB. RADIO (Apr. 21, 2015), <http://www.npr.org/2015/04/21/401000427/solar-power-makes-electricity-more-accessible-on-navajo-reservation> ("The Navajo

problem that is all too prevalent in Indian Country. Although widespread distribution of the REGUs has not occurred, the program's success can be summed up by the statements of one NTUA REGU installer: "We have all of these big power plants on our reservation, and we benefit very little from them. Although it creates jobs and produces royalty, we still have to buy our electricity. These hybrid units are used on the reservation to produce energy for the people."²¹⁹

C. Moapa Micro Grid Project

The Moapa Micro Grid is a 252-kilowatt hybrid solar, wind, and diesel generator facility that powers the tribe's business district containing the tribal council building and a shopping center.²²⁰ The business district is the primary on-reservation employment center.²²¹ The micro grid project was funded by a \$2.38 million grant from the U.S. Department of Agriculture High Energy Cost Grant program, which issues grants for energy efficiency programs in areas where energy costs are 275% above the national average.²²² Prior to the micro grid's introduction online, the Moapa powered the business district with several diesel generators, which cost the Tribe approximately \$1.5 million per year to operate and maintain.²²³ The new micro grid is projected to save the Tribe nearly \$700,000 per year.²²⁴ Since the project is funded with grant money rather than a loan, the savings to the Tribe are immediate, and the project does not have to undergo a lengthy return on investment period.²²⁵

Tribal Utility Authority has deployed 260 solar panel units, but currently there is no funding for more.").

219. *Wind Turbines Power Remote Navajo Homesteads*, *supra* note 216, at 2.

220. John L. Smith, *Solar Panels Good Deal for Moapa Tribe*, LAS VEGAS REV.-J. (Apr. 10, 2014), <https://www.reviewjournal.com/news/solar-panels-good-deal-for-moapa-tribe/>.

221. *Id.*

222. *USDA Administrator Joins with Stronghold Engineering and Project Partners to Dedicate New Solar Project at Moapa Paiute Travel Plaza in Nevada*, ALTENERGYMAG.COM (Apr. 8, 2014), <http://www.altenergymag.com/news/2014/04/08/usda-administrator-joins-with-stronghold-engineering-and-project-partners-to-dedicate-new-solar-project-at-moapa-paiute-travel-plaza-in-nevada/32991>.

223. *Native Americans and Renewable Energy*, 1ST TRIBAL LENDING, <https://www.1tribal.com/2014/09/native-americans-and-renewable-energy/> (last visited Apr. 24, 2017).

224. *Id.* Similar to the Moapa, the Alaskan village of Tuntutuliak ran on a diesel micro grid until the tribe, in a partnership with the Alaska Energy Authority, constructed a 450-kilowatt wind-diesel hybrid system to power the town. The tribe expects to save approximately \$500,000 and over 70,000 gallons of diesel per year. The previous diesel system cost the tribe about half of its annual budget. Guevara-Stone, *supra* note 73.

225. *See* Smith, *supra* note 220.

The Moapa are also planning to bring online the largest utility-scale solar array on tribal lands by the end of 2016.²²⁶ This project will consist of a 250-megawatt solar array,²²⁷ and will represent a significant step forward for the Tribe for two reasons. First, the Tribe has already obtained a power purchase agreement with the Los Angeles Department of Water and Power, which guarantees the project's financial stability.²²⁸ Second, the 550-megawatt Reid Gardner Generating Station, which is a coal-fired power plant near the reservation, is scheduled to be fully decommissioned in 2017.²²⁹ The Moapa have been active in their opposition to the plant, which they cite as a cause of asthma, lung diseases, and severe allergies among tribal members.²³⁰ Although the Tribe stands to gain a significant revenue stream from its utility-scale solar array, the energy generated therefrom will be almost exclusively consumed off-reservation.²³¹ Therefore, those Moapa tribal members who do not have grid-access to energy will not see any direct energy benefit from the project.

D. The Campo Band of Kumeyaay Wind Farm

The Campo Band of Kumeyaay Indians developed a wind farm consisting of twenty-five two-megawatt turbines on their reservation near San Diego.²³² This project is unique because the Tribe does not receive any revenue from the energy sales.²³³ Rather, 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.²³⁴ While it is beneficial that the Campo Band of Kumeyaay incurs little-to-no financial risk from the project, the revenue the Tribe receives from the lease

226. *First Solar Breaks Ground On 250 MW Moapa Southern Paiute Solar Project*, SOLAR INDUS. MAG. (Mar. 24, 2014), <http://solarindustrymag.com/first-solar-breaks-ground-on-250-mw-moapa-southern-paiute-solar-project>.

227. *Id.*

228. Emily Hois, 'Coal to Clean Energy' March Highlights Largest Solar Plant on Tribal Land, SOLARREVIEWS (Sept. 30, 2013), <http://www.solarreviews.com/news/coal-to-clean-energy-march-highlights-new-solar-plant-on-tribal-land/>.

229. *Id.*

230. *Id.*

231. *Id.*

232. Monique La Chappa & Melissa Estes, Presentation to the U.S. Dep't of Energy, Tribal Energy Meeting: Campo's Renewable Energy: Security, Independence, and Economic Development (Nov. 15, 2011), http://energy.gov/sites/prod/files/2015/12/f27/re_dev_campo_wind_estes.pdf.

233. *Id.*

234. *Id.*

agreement is less than it would receive if the Tribe were a partner in the energy sales.²³⁵ However, because the tribal government is not eligible for federal tax credits, it is financially more prudent to lease the land to a non-tribal corporation that can take advantage of the tax credits to offset the costs of the project.

The most notable aspect of the aforementioned projects is that even though each is an energy project designed to expand energy availability in Indian Country, each project addresses access to energy in a different manner. This underscores not only the breadth of access to energy issues in Indian Country, but also the complexity of these issues. The lack of access to energy in Indian Country is not one issue affecting one discrete group of people. Instead, there are many different energy access issues affecting different population segments within many different tribes. Although each of the projects above are different from each other, they all have one thing in common that significantly contributes to their success: they are Indian-driven solutions to Indian problems. This may seem trivial, but 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. Consequently, even though non-tribal entities may be involved in renewable energy development projects in Indian Country, it is important that these entities both recognize and respect tribal input, even if the tribe is not a majority shareholder or otherwise does not have a controlling interest in the project.

V. Conclusion

Understanding the history of the United States' policy toward Indians is critical to understanding the current issues that affect access to energy in Indian Country. Issues of access to energy in Indian Country developed over the span of many decades, and solutions to these issues will likely take several more decades to formulate and implement. Improving access to energy in Indian Country will require not only significant changes to the federal regulatory scheme for renewable energy development, but will also require the creativity and tenacity of the Indian people whose everyday lives are shaped by their energy access. There are already promising signs from both tribal governments and tribal members that greater focus, awareness, and effort are being placed on expanding energy access in Indian Country. Renewable energy development has the potential to create

235. MEISEN, *supra* note 77, at 16-17.

a significant economic revenue stream for the tribal government, and possibly even individual tribal members who can sell surplus energy back to the grid. The question going forward is whether the federal government will work proactively to amend the statutory and regulatory structure to better suit the needs of the Indians so that tribal governments' renewable energy development is cost-competitive with renewable energy development by private investors.