

Landowners file suit against wind farms

A group of seven Kingfisher and Canadian county landowners and the Oklahoma Wind Action Association filed a federal lawsuit Wednesday against Apex Clean Energy fisher wind farms slated for construction in the vicinity of the plaintiffs' properties, consist of more than 300 industrial wind turbines which are almost 500 feet tall.

protect the health and safety of our families."

The lawsuit alleges that wind turbines emit low frequency sounds that are inaudible but are proven to cause sleep loss, increased stress and Rick Huffstular, who live adjacent to wind turbines in the Canadian Hills Wind Farm outside Calumet, another Apex p...ect.

The Huffstulars allege the wind turbines cause shadow flicker noise

Wind energy on city agenda

Kingfisher city commissioners have scheduled a special meeting at 5:30 p.m.

THE Kingfisher Times & Free Press

Fifty Cents Kingfisher, Kingfisher County, Oklahoma

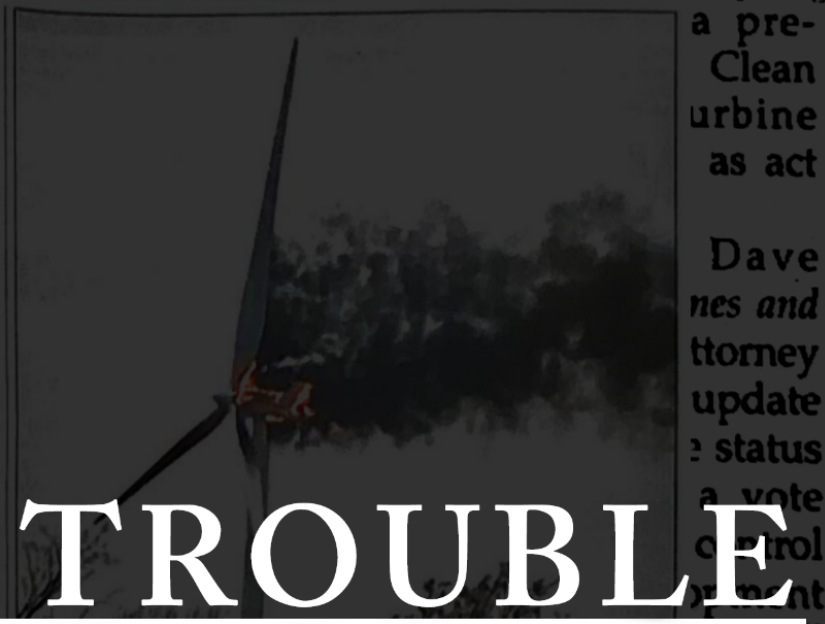
Vote unanimous to reappoint

No turbine buffer zone discussed

Kingfisher city commissioners voted unanimously to reappoint City Manager Dave Sleizick for another year as part of a lengthy monthly agenda Monday night.

Sleizick is starting the second year of a three-year contract approved by the commission last year, but the city charter still requires an official vote to reappoint him.

The city manager was one of the annual appointments approved after a public hearing.



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TURBINE TROUBLE

HOW COMMERCIAL WIND THREATENS SUSTAINABLE DEVELOPMENT IN RURAL OKLAHOMA

By Brandon Hubbard

IT'S NOT TOO LATE!

BEFORE RESIGNING YOUR LEASE, CONSIDER YOUR HEALTH AND YOUR NEIGHBOR'S HEALTH

Please join us to learn more
Wednesday, Oct. 8th @ 6:30 pm
NBC Bank 801 S Main St, Kingfisher, OK
owaa@outlook.com 627-5108

You are not alone! Numerous others are having second thoughts about resigning their lease. Wind turbines emit low frequency sound that can cause serious health effects.

This is a photo of a gentleman's barn in Hunter, OK. He said the turbines keep him from sleeping at night. Please think of yourself and your neighbors before resigning. Learn about his story at our next meeting.

CRICKET E. KAYA

THE UNIVERSITY OF OKLAHOMA | COLLEGE OF INTERNATIONAL STUDIES

TURBINE FIRE — A wind turbine caught fire sometime Saturday at Kingfisher Wind Farm southeast of Kingfisher at the intersection of HS 2920 and EW 840 roads. Okarche Fire Department was notified of the fire shortly after 12:30 p.m. and responded with five firefighters and three units, Chief Steve Liebi told the Times & Free Press. Trucks from Big 4, Kingfisher and Cashion also were dispatched but turned back when it was determined they weren't needed. Liebi said representatives of Apex Clean Energy also were at the scene. The fire was mostly confined to the engine housing but also partially burned the blades and about three acres of grass below, Liebi said. Two similar fires have occurred at the wind farm near Calumet, but Liebi said this was the first reported at the Kingfisher farm. An Apex representative quoted in the *Enid News* said the turbine was taken offline and the cause of the fire is under investigation. (Photo Credit: Charles Jenkins)

Apex to city: Let's negotiate, not litigate

Wind company reps speak at special meeting

Representatives of Apex Clean Energy urged Kingfisher city commissioners at a special meeting Thursday night to postpone adoption of a proposed ordinance establishing a no-turbine buffer zone around the city and instead work with them to forge a binding agreement that would accomplish the same goal.

"Come to the table with us and let us try to reach an agreement that will make everyone happy," Kent Dougherty, Apex project development director said. "If it doesn't work out, you'll still have all the legal tools available to take other action."

Apex requested to be heard on a city agenda after an attorney representing Oklahoma Wind Action Association and several of the group's members spoke at the city's regular April meeting urging adoption of an is legal under a state nuisance law which allows a city to identify nuisances outside its borders which threaten the health of its residents.

Enacted in 1935 primarily to allow cities to protect their water sources, the law was used as the basis of a similar ordinance adopted in Piedmont which was later repealed by its city council after entering an agreement with Apex to voluntarily establish a revised buffer zone.

University of Oklahoma Professor Scott Greene, director of the Oklahoma Wind Power Initiative, a joint project between OU and Oklahoma State University, told Kingfisher commissioners that scientific evidence is insufficient to support the claim that wind turbines impact public health.

Dougherty said his Charlotte-Valley project at Calumet and the Kingfisher Wind Farm, which is actually located in northern Canadian and southern Kingfisher County, with the nearest planned turbine located 4.7 miles south of Kingfisher's southernmost boundary.

"That's eight miles from where we're standing right now in City Hall," he said.

After boundary issues were resolved with the city of Piedmont and town of Okarche, the 300-megawatt Kingfisher Wind Farm is expected to begin construction in the fall, with 149 turbines planned.

A similarly-sized project dubbed Campbell Creek Wind Farm, which would be constructed in an area beginning three miles east of Kingfisher, is still in the exploratory stages, Dougherty said.

and determine if the project is viable.

"Our earliest possible start date for construction on that project is at least two years away," he said. "It's not something we're going to pull the trigger on anytime soon."

Dougherty said he met with City Manager Dave Sleizick more than a year ago and was informed at that time of the city's concerns that turbines not be constructed any closer than three miles from town.

"We heard the same three-mile request from State Rep. Mike Sanders and we have no problem with that," he said. "In fact, we're planning to go a little farther out than three miles in some areas to stay back from the housing developments near Shafterberg Road."

Greene, who said he has no affiliation with Apex, said two recent

PLEASE JOIN APEX CLEAN ENERGY & OKLAHOMA WIND OKLAHOMA

and the Kingfisher Wind project. Learn more about wind energy, and receive updates on Kingfisher Wind.

TURBINE TROUBLE:
How Commercial Wind Threatens Sustainable Development in Rural Oklahoma

Cricket Emi Kaya

The University of Oklahoma, College of International Studies

Senior Honors Thesis | Honors Research Project

Dr. Emma Colven

17 December 2021

Special Thanks

To the kind ladies at the Kingfisher Public Library for helping me sort through the piles of newspaper archives, teaching me how to use microfiche, and for keeping me company during those long hours.

Christine Reid, the Editor of the *Kingfisher Times and Free Press*, for your endless support in my education, and for giving me a starting point for this paper.

Dr. Colven, for your graceful leadership and motivating spirit. Thank you for encouraging me every step of the way.

Key Terms: Anthropocene, Energy Transition, Just Transition, Environmental Justice, Energy Democracy, Eco-Authority, Localization.

Introduction

I remember the day the turbines came to town. “They look like alien spaceships” my mom said, as we sat on our front porch and watched them go by. Gigantic white blades and poles strapped to eighteen-wheelers powered past our cottage on Main Street in Kingfisher, Oklahoma. The convoy made quite a spectacle. Trucks linked together for miles, extending from one edge of town to the other. At the time, it felt like a military parade. Neighbors withdrew from their houses to watch, and kids talked about it at school the next day.

For several months, anti-wind yard signs stood around neighbors’ yards, and graphics were shared on Facebook reading “Save Oklahoma! NO wind turbines here.” At the age of 16, I



knew that people were angry. It was a feeling you could sense among the small community of 5,000.

Wind energy was difficult for me to understand at the time, especially as a young person who was fearfully aware of my future amid the imminent threat of climate change. On our recurring drive to

my grandparent’s house in the nearby town of Piedmont, my parents and I often argued about the turbines as we passed by dozens of them. I could not comprehend how my parents, who bought a Toyota Prius in 2008 to “save the planet,” would possibly protest the development of clean energy. Likewise, many of their friends from the community held membership in the Oklahoma Wind Action association, a local activist group of wind energy opponents.

Five years later, I am a senior at the University of Oklahoma, studying international development with a concentration in environmental sustainability. For my honors thesis, I set out to study the Kingfisher wind conflict. I desperately wanted to know why the community that raised me had been so opposed to wind energy. Was it conservative politics? A competition with oil and gas? Or perhaps, they simply did not like the way the turbines looked? I knew that the support of small communities, especially in rural America, would be integral to an energy transition to fight climate change— so why were they so antagonistic? Throughout my research, I found a surprising shift in my perspective.

As I visited with locals and constructed an archival timeline, I unraveled an enduring narrative. Initially, I blamed the citizens of Kingfisher for deterring development. Yet in a full reversal, I began to see the wind developers as a barrier to progressive change. Rather than manifesting promised opportunities for local growth and partnership, I found that the large-scale developers estranged the community and exploited their resources. Apex Clean Energy Incorporated, the primary assailant, inserted itself into the community as an authoritarian force of corporate greed.

In search of explanations, I encountered a divisive landscape among Oklahoma scholars. Most research from the Oklahoma wind energy literature highlights the positive impact of rural wind energy development. Quantitative research by Mark Geisken, John Scott Greene, and Becca Castleberry illuminate growth across the state.¹ In contrast, Tanya Woody, and Burch et.al

¹ Castleberry, Becca, and J. Scott Greene. 2017. "Impacts of Wind Power Development on Oklahoma's Public Schools." *Energy, Sustainability and Society* 7 (1): 34.; Greene, John Scott, and Mark Geisken. 2013. "Socioeconomic Impacts of Wind Farm Development: A Case Study of Weatherford, Oklahoma." *Energy, Sustainability and Society* 3 (1): 2.; Castleberry, Becca, and John Scott Greene. 2018. "Wind Power and Real Estate Prices in Oklahoma." *International Journal of Housing Markets and Analysis* 11 (5): 808–27.

present qualitative work, demonstrating how wind development creates disharmony and confusion in Oklahoma communities.²

Although Oklahoma-centered research offered essential local context, my goal was to situate the Kingfisher case study within a larger conversation of a climate-conscious energy transition. Outside the borders of Oklahoma, I found a plethora of guiding research that articulates the impact of intrusive wind development on rural communities worldwide.

Anthropologist Cymene Howe introduces the fundamental concept of *anthropogenic eco-authority*, a theory that identifies a trending resistance to renewable energy as a consequence of authoritarian power structures in the era of the anthropocene.³ Anthropocene was coined by the biologist Paul Crutzen in 2000, to distinguish the most recent epoch of geologic time characterized by changes in the climate and intricate alterations in the chemical makeup of Earth's soil and atmosphere.⁴ With this guiding perspective, scholars demonstrate how neoliberal strategies of multinational development bleed into the emerging energy transition. Peter Newell and Dustin Mulvaney recognize these power structures, and propose that such systems are not sustainable without the integration of *environmental justice* in the form of a *just transition*.⁵ In practical application, scholars advocate for the pursuit of an *energy democracy*— the movement towards community-led, localized power generation and feedback loops.⁶ In rural communities,

² Burch, Claire, Rebecca Loraamm, and Travis Gliedt. 2020. "The 'Green on Green' Conflict in Wind Energy Development: A Case Study of Environmentally Conscious Individuals in Oklahoma, USA." *Sustainability* 12 (19): 8184. ; Woody, Tanya. 2020. "When the Wind Comes Right behind the' ... Sales Pitch: Alternative Views to Wind Energy Development in a Rural Oklahoma Host Community," December.

³ Howe, Cymene. 2014. "Anthropogenic Ecoauthority: The Winds of Oaxaca." *Anthropological Quarterly* 87 (2): 381–404.

⁴ Lewis, Simon L., and Mark A. Maslin. 2015. "Defining the Anthropocene." *Nature* 519 (7542): 171–80.

⁵ Newell, Peter, and Dustin Mulvaney. 2013. "The Political Economy of the 'Just Transition'" *The Geographical Journal* 179 (2): 132–40.

⁶ Weinrub, Al, and Anthony Giancattarino. 2015. "Toward a Climate Justice Energy Platform: Democratizing Our Energy Future | Community-Wealth.Org." Community-Wealth.Org. June 1, 2015.

the literature offers examples that demonstrate a heightened opportunity for energy resilience, and applies examples of working localized systems.⁷

Though exploratory arguments apply to rural Oklahoma, the existing literature has not yet applied theories and ideas concerning the political economy of wind energy within the larger international energy transition. I argue that wind energy development does not pose a separate, more ethical authority than oil and gas in Oklahoma. Rather, I explain how an existing energy authority prohibits the localized progressive growth of nearby communities, and reinforces an extractive hierarchy rooted in corruption. This paper demonstrates such trends, by synthesizing qualitative literature from the Oklahoma political landscape and the broader discourse of international development theory and applies this framework to the Kingfisher case study.

Methods

To narrate the impact of wind development in Kingfisher, Oklahoma, I sought to collect original primary research. The only local, family-owned newspaper, the *Kingfisher Times and Free Press*, meticulously recorded details of the controversy. After inquiring with the longtime editor of the *Press*, Christine Reid, I learned that all articles published before 2019 were only accessible on a microfilm archive located at the Kingfisher Public Library. For months, I flipped through all issues of the newspaper between 2013 to 2016 and compiled a longitudinal ninety-page document of every article ever published by the *Press* regarding wind energy, the

⁷ Jacquet, Jeffrey B., and Joshua T. Fergen. 2018. "The Vertical Patterns of Wind Energy: The Effects of Wind Farm Ownership on Rural Communities in the Prairie Pothole Region of the United States." *Journal of Rural and Community Development* 13 (2). ; Bonnie, Robert. 2020. "Understanding Rural Attitudes Toward the Environment and Conservation in America." Text. Nicholas Institute. Nicholas Institute for Environmental Policy Solutions, Duke University. February 13, 2020. ; Bolinger, Mark. 2004. "Community-Owned Wind Power Development: The Challenge of Applying the European Model in the United States, and How States Are Addressing That Challenge," March.

wind industry, or wind turbines. Additional primary research includes a handful of interviews, as well as my own experience as a hometown citizen of Kingfisher. In my research, I found a story packed with the mourning for a way of life threatened by large-scale corporate development.

To prelude my findings, the following paper begins with a theoretical and practical literature review, intended to summarize the state of global wind energy scholarship. Then, I narrow my approach with an analysis of the policy landscape surrounding wind energy in Oklahoma. Lastly, I present the longitudinal case study based in Kingfisher, Oklahoma to a discussion from the literature.

Literature Review

Disapproval of wind energy is a growing issue across the United States. In a study conducted by The Institute for Local Self Reliance, John Farrell finds that communities impacted by wind development voice concerns of public health and safety. However, Farrell suggests that such distaste from rural communities stems from an ongoing struggle to preserve local resources from corporate exploitation.⁸ Beyond the United States, Sofia Avila identifies this aversion as a symptom of uneven development. In her comparative research of twenty wind farm projects worldwide, Avila shows how such cycles perpetuate uneven growth, further entrenching systems of inequality.⁹ The following literature engages with this idea. It proposes commodified wind energy as a contradictory actor in the ongoing global energy transition. In response, scholars offer a pathway towards a localized energy transition— one rooted in democracy and justice.

⁸ Farrell, John. 2014. "Report Released: Advantage Local – Why Local Energy Ownership Matters." Institute for Local Self-Reliance. September 24, 2014. p. 3

⁹ Avila, Sofia. 2018. "Environmental Justice and the Expanding Geography of Wind Power Conflicts." *Sustainability Science* 13 (3): 599–616. p. 613

Anthropocenic Eco-Authority

In her study of the Marena Renovables wind park based in the Isthmus of Tehuantepec in Oaxaca, Mexico, Anthropologist Cymene Howe illustrates the impact of uneven development. She argues that renewable energy transitions radically depend on how implementing actors assert their *anthropocenic eco-authority*, which she defines as

“The series of experiential, scientific, and managerial truth-claims regarding ecological knowledge and future forecasting in an era of global anthropogenic change.”¹⁰

Throughout her research, Howe asserts that large-scale renewable energy projects mimic the behavior of historically corrupt development schemes, bringing empty promises of uneven growth.

From inception, none of the energy produced by the wind park was intended for local distribution. Rather, deals were made with multinational companies to promote greenwashing campaigns, like the carbon offset of Coca Cola and Walmart.¹¹ Indigenous Oaxacans who lead the community describe familiarity with the ongoing harassment by wind development projects. They claimed to have been “tricked and forced to bear the consequences of climate change mitigation and green capitalist aspirations in ways that are all too familiar.”¹² Locals actively protested the construction of the wind park, and expressed that turbines caused issues of

¹⁰ Howe, *Anthropocenic Ecoauthority: The Winds of Oaxaca*, 381

¹¹ Becker-Olsen, Karen, and Sean Potucek. 2013. “Greenwashing.” In *Encyclopedia of Corporate Social Responsibility*, edited by Samuel O. Idowu, Nicholas Capaldi, Liangrong Zu, and Ananda Das Gupta, 1318–23. Berlin, Heidelberg: Springer. Greenwashing was coined in 1986 by environmentalist Jay Westerfield to describe the corporate use of environmental sustainability as a marketing strategy (Becker-Olsen and Potucek 2013). ; Howe, *Anthropocenic Ecoauthority: The Winds of Oaxaca*, 385

¹² *Ibid*, 382

environmental degradation. Such protest evolved into violent state-sponsored human rights violations, including assassinations, and the eventual end to the wind park project.¹³

In reflection, Howe argues that true sustainable, renewable energy development calls for the reversal of anthropocenic eco-authority—an approach that integrates the importance of local politics.¹⁴ Her revolutionary ability to recognize and articulate the complexity of this issue is the primary rationale behind this paper’s literature review. She shows that corrupt behavior from commercial wind does little to advance clean energy. Rather, it inhibits development by inspiring divisive protest and violence.

Compared to Howe, Jeffrey Jacquet and Fergen found a more subtle relationship in the impact of local ownership on rural communities in the rural Midwest of the United States. Respondents viewed utility wind developers as outsiders but were more willing to accept the perceived benefits associated with development. Their research suggests that rural communities in the United States are familiar with the practice of local systems-building, owing to a long history of energy, communication, agricultural, and financial cooperatives.¹⁵ Jacquet and Fergen conclude that what is most impactful, is “local context,” meaning the size of the project, patterns of siting, and a community’s history with the turbines.”¹⁶ This demonstrates Howe’s theory of anthropocenic eco-authority, as they found that large-scale development caused a decline in the power of local control.¹⁷ Despite general apathy expressed by rural respondents, most were

¹³ Ramirez, Jacobo. 2021. “Contentious Dynamics Within the Social Turbulence of Environmental (In)Justice Surrounding Wind Energy Farms in Oaxaca, Mexico.” *Journal of Business Ethics* 169 (3): 387 ; Howe, *Anthropocenic Ecoauthority: The Winds of Oaxaca*, 389

¹⁴ *Ibid*, p. 399

¹⁵ Jacquet and Fergen, *The Vertical Patterns of Wind Energy*, 134

¹⁶ *Ibid* 144

¹⁷ *Ibid* 143

unable to associate a name with the development of the wind park, demonstrating a loss in the eco-authority of their surrounding environment.

Political Economy and Just Transitions

In their research, Peter Newell and Dustin Mulvaney detail the political economy of our current global energy system and theorize its place in an energy transition. They propose a solution in the form of a “socio-technical” transition, meaning the introduction of

“deep structural changes in systems, such as energy, that involve long-term and complex reconfigurations of landscapes with technology, policy, infrastructure, scientific knowledge, and social and cultural practices towards sustainable ends¹⁸”

Through this perspective, Newell and Mulvaney stress the importance of integrating environmental justice in the form of a ***just transition***— one that acknowledges the complexity of equal opportunity, uplifts underrepresented identities, and recognizes distributive justice as a core doctrine of structural change.

When positioned into the political economy, Newell and Mulvaney propose that a just transition challenges the current energy world order by centering the preservation and advancement of marginalized communities as a pathway out of exploitative power structures.¹⁹ They predict that without severance from this paradigm, energy hierarchies will decarbonize along similar patterns of prejudice.²⁰ Therefore, the dominating role of commodified energy must be rehabilitated towards a just transition. Newell and Mulvaney suggest that a future in global

¹⁸ Newell and Mulvaney, *The Political Economy of the ‘just transition’*, 133

¹⁹ *Ibid* 134

²⁰ *Ibid* 136

energy justice could emerge from the complicated and violent political economy of energy if we amend and reflect upon past corruption.²¹

Energy Democracy is the Solution

Weinrub and Giancatarino advocate for decarbonization through a reversal of power. They find contemporary decarbonizing strategies to be highly centralized, with governments funneling money into expensive large-scale wind farms, solar farms, and industrialized carbon-free manufacturing.²² However, their research suggests that a centralized model will not produce long-term change, as it fails to challenge the inherently extractive nature of globalized energy markets.²³ Weinrub and Giancatarino find the solution in the creation of an *energy democracy*—an economic system that defies corporate energy through localization. Weinrub and Giancatarino describe energy democracy as,

A way to frame the struggle of working people, low-income communities, and communities of color to take control of energy resources from the energy establishment and use those resources to empower their communities—energetically, economically, and politically.²⁴

Democratization involves the direct stewardship and community-based management of local resources, to uplift communities who are historically left out of energy policy decisions.

Applied to a rural setting, Rob Hopkins argues that the reintroduction of small-scale energy development is *inevitable*. He predicts that a lack of fossil fuels will make transporting goods over long distances extremely expensive, and communities will have to adjust their

²¹ *Ibid* 138

²² Weinrub and Giancatarino, *Toward a Climate Justice Energy Platform*, 8

²³ *Ibid* 6

²⁴ *Ibid* 6

infrastructure to support more locally sourced goods²⁵. With this revelation, Hopkins looks to the past for guidance. He demonstrates the potential power in reclaiming a smaller community feedback loop— one that values the input of individual members and experiences a connection with the energy and food they consume²⁶. Hopkins claims that revitalizing local energy networks, wherever possible, is an act of liberation for rural communities who have traditionally always viewed the health of the environment and the economy as a reciprocal process.²⁷

Why Rural Resilience Works

Traditionally, wind-proponents disregard local opposition as a symptom of a conservative distaste for progressive change. In turn, communities often cling to allegations of adverse health effects and environmental degradation.²⁸ These frustrations are gaslit as ignorant, selfish, and discounted as NIMBY.²⁹ However, given the profit-driven nature of wind developers, opportunities for objection to structural change are rarely admissible.³⁰ Developers have no incentive to give up the power structure that awards them profits. Instead, they blame the incompetence of rural communities in their unacceptance of change. To validate this experience, Avila proposes that wind energy expansion threatens the territorial capacity for political and economic autonomy, a trap that is familiar for rural communities who endure patterns of fiscal uncertainty.³¹

²⁵ Hopkins, Rob. 2014. *The Transition Handbook from Oil Dependency to Local Resilience*. Cambridge: Uit Cambridge Ltd.

²⁶ *Ibid* ch. 3.

²⁷ *Ibid* ch. 4.

²⁸ Avila, *Environmental justice and the expanding geography of wind power conflicts*, 599

²⁹ *Ibid* 599

³⁰ Farrell, *Why Local Energy Ownership Matters*, 3

³¹ Avila, *Environmental justice and the expanding geography of wind power conflicts*, 612

A study conducted in 2020 by the Nicholas Institute for Environmental Policy Solutions, sought to explore the complexities that motivate rural American attitudes towards the environment and climate change policy. Through a series of surveys and questionnaires, the study found that rural Americans make environmental decisions derived from their ability to honor a place-based identity.³² They value community above all else, sourced from a desire for self-governance. The study showed that rural Americans tend to be highly educated and connected with issues of conservation and the environment, but the primary factor in determining a rural voter's support for any project or policy, was their ability to be directly involved at a local level.³³ This longing for resiliency generates skepticism of large-scale corporate or government projects. The study suggests that this is a reaction to inter-generational fears of dismissed input, bringing hardship to the community.³⁴ Overall, the study found that rural Americans highly value the ability to self-govern the fate of their surrounding landscape, because it is integral to their emotional wellbeing and sense of community. Researchers in the study argue that the only pathway towards rural engagement in climate policy is through direct involvement and collaboration at every level.³⁵

In combination with the literature's local call to action, rural communities are extremely well-equipped to launch efficient localization projects in energy democracy. When put into practice, localization has proven more lucrative and economically savvy. Studies show that community ownership of renewable energy accounts for a +50-250% increase in the economic value of energy output, which accounts for long term job growth and local fiscal stimulus.³⁶

³² Bonnie, *Understanding Rural Attitudes Toward the Environment and Conservation in America*, 4

³³ *Ibid* 5

³⁴ *Ibid* 5

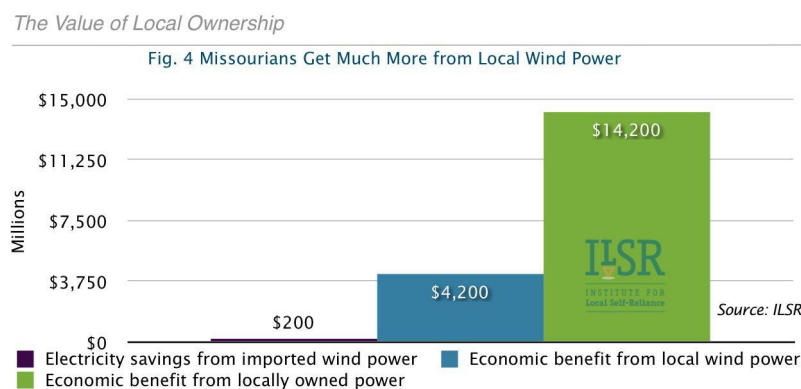
³⁵ *Ibid* 6

³⁶ Farrell, *Why Local Energy Ownership Matters*, 2

Likewise, in the American Midwest, community wind is shifting to supplement farmers income, and aid in the continuation of rural, agricultural life.³⁷

Socio-politically, when communities feel involved in clean energy projects, they are more likely to support their development as a political constituency.³⁸ In a study conducted in Germany between two towns, one with local ownership and one without, surveys showed a +77% increase in approval of the wind farm from the town with ownership. This indicates that there are both economic and political incentives for local democratization of energy.³⁹

Research suggests that localization can also generate savings. A case study in Missouri showed that by switching to in-state wind energy, the economic benefits greatly outweigh total savings proposed by imports.⁴⁰ Put simply, the Missouri study suggests that local power generation creates far more money than the savings promised by specialization **See Figure 1.**



(Figure 1) *The Value of Local Ownership*, Farrell, J. (2018, March 12). Report released: *Advantage Local – why local energy ownership matters*. Institute for Local Self-Reliance. Retrieved December 15, 2021, from <https://ilsr.org/report-advantage-local/>

Beyond the United States, European countries have successfully employed small-scale wind energy development for decades. Mark Bolinger shows a correlation with policy incentives.

³⁷ Bolinger, *Community-owned wind power development* 1

³⁸ Jacquet and Fergen, *The Vertical Patterns of Wind Energy*, 131

³⁹ Farrell, *Why Local Energy Ownership Matters*, 4

⁴⁰ Farrell, *Why Local Energy Ownership Matters*, 5

He gives an example from Germany, where laws motivate farmers and residents to apply for turbine installation on their own terms. In contrast, policy in the United States historically focused on the use of the Federal Production Tax Credit (PTC), which gave developers a 5-year tax break to push large-scale wind farms.⁴¹

Additional barriers to democratization in the United States relate to the traditional structure of the electricity grid. Energy lobbying created a legal structure that provides no avenue for local management.⁴² Such incentives give corporate development a leg-up in the energy market, awarding them the earliest opportunity to commodify resources before local communities have the chance to tap in. In essence, there remain many blocks to democratically managed wind energy in the United States.

Policy Landscape of Wind Energy in Oklahoma

Oklahomans recognize a foundational history with oil and gas. They associate statehood with the blessing of black gold, and their self-governed ability to profit from it.⁴³ From the foundations of oil, Oklahoma emerges as a national hub for energy production of all kinds. The geography of Oklahoma is rich with resources ripe for extraction, including coal, wind, and hydropower. Even with such an abundance of raw power, other states surpassed Oklahoma in energy generation. Texas dwarfs all other states, producing a whopping 43% of the nation's crude oil. Behind Texas, sits North Dakota (10.4%) and New Mexico (9.2%), with Oklahoma

⁴¹ Bolinger, *Community-owned wind power development*, 1

⁴² Farrell, *Why Local Energy Ownership Matters*, 3

⁴³ Stephenson, Moriah. 2016. "Red Dirt Resilience: Enduring Narratives of Oklahoma Environmental Activism," May. 40

coming in fourth (4.1%). Conversely, Oklahoma exceeds in its insatiable thirst for energy, ranking 28th in population, but 10th in energy consumption per capita.⁴⁴

To satisfy its demand for consumption, Oklahoma is pivoting its extraction methods, trading oil and gas development for wind energy. Home to strong winds and flat terrain, Oklahoma's western prairie provides some of the most ideal conditions for reliable commercial wind development.⁴⁵ In 2001, Oklahoma Governor Frank Keating signed legislation to create the Zero Emissions Tax Credit, setting up years of wind development incentives.⁴⁶ Wind turbines are visible in mass throughout the western part of the state, totaling 3,736 spinning turbines in 2021.⁴⁷ Some argue that investment in wind has paid off– in 2020, wind energy alone served 35% of the state's power generation, and development exceeded all renewable energy goals set upon implementation.⁴⁸ Over just the past decade, wind has quickly become a significant component of Oklahoma's energy profile. The following chart compares net electricity generation in Oklahoma from coal, natural gas, hydroelectric, and wind energy, sourced from the U.S. Energy Information Administration. The data set for natural gas shows a consistent boom and bust relationship, while wind moves steadily upwards.

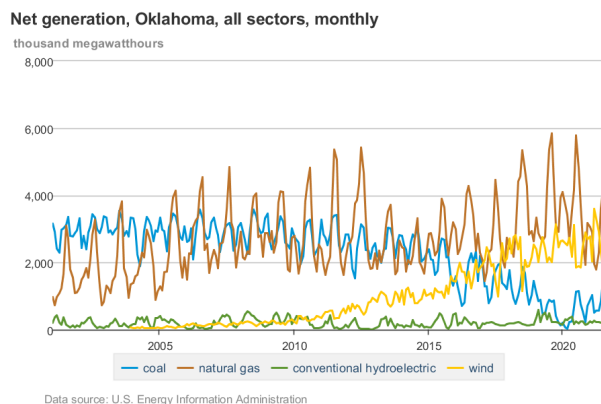
⁴⁴ "Oklahoma - State Energy Profile Analysis - U.S. Energy Information Administration (EIA)." n.d. Eia.Gov.

⁴⁵ Geisken and Greene, *Socioeconomic impacts of wind farm development*, 1

⁴⁶ Keating, Frank. 2017. "Frank Keating: I Signed Wind Industry Tax Breaks, and I Was Wrong | Columnists | TulsaWorld.Com." TulsaWorld.Com. February 24, 2017.

⁴⁷ Corral, Ana. 2021. "Oklahoma Wind Farm Areas." ArcGIS StoryMaps. May 7, 2021.

⁴⁸ "Oklahoma - State Energy Profile Analysis - U.S. Energy Information Administration (EIA)." n.d. Eia.Gov.



EIA. (2021). U.S. Energy Information Administration - EIA - independent statistics and analysis.
<https://www.eia.gov/electricity/data/browser/>

Research suggests that wind energy developments may provide growth to rural Oklahoma host communities. Industry messaging promises economic stimulus, jobs, and development. Dr. John Scott Greene, an atmospheric and geographic scientist from the University of Oklahoma, is a state-wide leader in wind energy who contributes to a wide number of local quantitative literature regarding the impact of wind development. In a study he co-authored assessing the socioeconomic impact of wind on the city of Weatherford, Oklahoma, research showed that the construction of the wind farms had a substantial positive impact on the city. The study found that wind development added employment, both short and long-term for the Weatherford community.⁴⁹ From an economic perspective, the construction phase of the turbines stimulated millions of dollars and jobs within the community, mostly through local construction contracting.⁵⁰ In addition, interviews conducted with Weatherford citizens reveal an overwhelmingly positive perception of the turbines following the construction phase.⁵¹

⁴⁹ Geisken and Greene, *Socioeconomic impacts of wind farm development*, 2

⁵⁰ *Ibid*, p. 7

⁵¹ Geisken and Greene, *Socioeconomic impacts of wind farm development*, 8

Weatherford is the primary example of an Oklahoma community that embraced corporate wind farm development.

One of the most advertised benefits of wind farm development is its potential to bring additional money into local public-school districts. In a study assessing the impact of wind on nearby school districts, Castleberry and Greene found that increased property values linked to the wind turbines can offer self-sufficiency to public schools through ad valorem, or property tax benefits.⁵² Therefore, funds are directed from local sources rather than state or federal funding, resulting in a higher chance of added benefits for smaller rural communities who rely heavily on outside sources.⁵³ However, because Oklahoma public school funding is allocated on a need-based structure across the board, research showed no direct indicator that the turbines reliably added overall funding to the public schools⁵⁴. The turbines may indirectly localize funding, but there is no consistent promise of an increase in total revenue.

Wind Developer Controversy and Inconsistencies

My research revealed that most published opinions regarding Oklahoma's wind energy centers on its added benefits. In contrast, local studies analyzing the wind industry from a critical perspective are much more limited, despite the prevalence of opposition. The literature provides two in-depth projects assessing the negative attitudes towards wind development. Leading the way, Tanya Woody details the reasons behind complex negative attitudes associated with wind development in the host community of Woodward, Oklahoma.⁵⁵ To supplement, Burch et al.

⁵² Castleberry and Greene, *Impacts of wind power development on Oklahoma's public schools*, 12

⁵³ Dr. John Scott Greene, personal interview, November 24, 2021

⁵⁴ Castleberry and Greene, *Impacts of wind power development on Oklahoma's public schools*, 13

⁵⁵ Woody, When the Wind Comes Right behind the' ... Sales Pitch: Alternative Views to Wind Energy Development in a Rural Oklahoma Host Community," December.

explore opposition to wind development from the perspective of environmentally conscious individuals in Oklahoma.⁵⁶ The following section combines their work to create a detailed explanation as to why wind development faces increasing opposition.

Woody found that Woodward residents expressed disappointment that the promises made by the wind company did not come to fruition as anticipated. Even though the wind farms bring some economic growth, Woody asserts that they often mimic the same oil and gas boom-and-bust revenue cycles that have plagued small rural communities for decades. After the boom of employment and financial stimulus provided by construction, the only mechanism funneling money into the city through the wind industry is through trickle-down dollars from landowner turbine lease payments.⁵⁷ Woody suggests that rural cities may have leftover skepticism from the oil and gas boom and bust cycles.⁵⁸ Without a consistent, noticeable presence of growth in the community, the people of Woodward were left to grapple with a bust period, giving them a sour perception.

In her explanation of a lack of funding, Woody discovered inconsistencies entrenched in tax avoidance schemes. Consequently, she details how public-school financing, which was a primary incentive to support wind development, remains unclear and unseen in many communities across the state to this day. Early in wind development, property tax problems trace back to State Question 588. It was passed by voters in 1985 to bring economic development to rural communities. Proposed as an incentive for manufacturers, SQ588 offers a 100% ad valorem tax-exemption to wind farms, data centers, and power plants within the first five years of

⁵⁶ Burch, Claire, Rebecca Loraamm, and Travis Gliedt. 2020. "The 'Green on Green' Conflict in Wind Energy Development: A Case Study of Environmentally Conscious Individuals in Oklahoma, USA." *Sustainability* 12 (19): 8184.

⁵⁷ Woody, *Alternative views to Wind Energy Development*, 100

⁵⁸ *Ibid*, p. 13

development.⁵⁹ Woody explains that the exemption-reimbursements given to the wind farms were provided by the state, siphoning millions of taxpayer dollars towards the companies. In 2016 the state withdrew the exemptions for any wind farm constructed prior, but the initial profit made from the tax exemptions have not materialized for many communities.⁶⁰

On February 24th, 2017, Former Oklahoma Governor Frank Keating published an article in the Tulsa World titled, “I signed wind industry tax breaks, and I was wrong.” The article offers details regarding the Oklahoma Zero Emissions Tax Credit. Governor Keating affirms the Credit was proposed in 2001 to bring growth and jobs to an emerging wind industry in Oklahoma. Keating says that signing this legislation was “simply a mistake.”⁶¹ At its inception, the project was due to cost \$2 million to the state each year. However, with an uncapped incentive program, multinational, multi-billion-dollar corporations came to Oklahoma to take advantage. Keating says that the tax credit ended up costing the state over \$113 million in 2014, and he predicted billions more in the future. He says that the tax break “warped into a scam costing taxpayers million to the detriment of other publicly funded services.” Even worse, he details that the credits were directly refundable by 2014, and that the state was simply writing checks to the wind companies for 85% of each credit. He calls it the “worst kind of corporate handout.”⁶²

Despite the termination of the 2016 tax exemption, wind farm companies continue to deprive rural communities of full benefits. Dr. Scott John Greene described to me in a personal interview, that wind companies may offer a payment-in-lieu-of-taxes (P.I.L.O.T) to make up for

⁵⁹ Monies, Paul. 2015. “Oklahoma Legislators Debate Property Tax Exemption for Manufacturing, Wind Farms.” Oklahoman.Com. February 10, 2015. ; Woody, *Alternative views to Wind Energy Development*, 106

⁶⁰ Woody, *Alternative views to Wind Energy Development*, 106

⁶¹ Keating, Frank. 2017. “Frank Keating: I Signed Wind Industry Tax Breaks, and I Was Wrong | Columnists | TulsaWorld.Com.” TulsaWorld.Com. February 24, 2017.

⁶² *Ibid*

this five-year difference. However, Dr. Greene also informed me that wind developers are actively suing county assessors to lower the property values, leaving millions of dollars in a bureaucratic limbo.⁶³ In 2021, county treasurers in Oklahoma hold up to 80 million dollars in property tax payments due to such disagreements. An article reports that the Minco School District (Grady, Canadian, Caddo Counties), sold bonds to fund much needed academic amenities for their students, after being promised lucrative wind energy benefits. Yet, in late 2020 the wind developers protested the valued assessment made by the county, arguing that the valuation was much higher than necessary.⁶⁴ This means that essential tax money remains inaccessible.

Enduring animosity blends with a lack of community involvement from industry representatives. Woody explains that members of the Woodward community feel distrust in the companies because they don't appear in the community like oil and gas, both financially and physically.⁶⁵ Moreover, developers seldom involve regional input in the planning process. Such exclusion can greatly impact the judgment of rural communities.⁶⁶ Among other siting issues, Woody suggests that little or no participation from nearby municipalities is a common reason for turbine disapproval in Oklahoma.⁶⁷

Woody's interpretation greatly contrasts with previous scholars' explanations for reasons of wind energy skepticism in Oklahoma. In our interview, Dr. Greene briefly summarized his findings on the subject. He informed me that positive perception of wind energy trends

⁶³ J. Greene, personal interview, November 24, 2021

⁶⁴ Prather, Megan. 2021. "Oklahoma Schools Left in Limbo Because of Tied up Property Taxes." *Ardmoreite.Com*. October 15, 2021.

⁶⁵ Woody, *Alternative views to Wind Energy Development*, 95-100

⁶⁶ *Ibid*, p. 48

⁶⁷ Burch et al., *Green on Green Conflict*, 3

downward over time, pointing blame to NIMBY (not-in-my-backyard), conservative politics, and a historical legacy of oil and gas. Woody associates NIMBYism with claims of reduced property values or health problems or seizures due to a *shadow flicker*, the effect of a moving shadow created by a turbine blade.⁶⁸ Castleberry and Greene have published literature disproving these claims.⁶⁹ However, in recent years NIMBYism has been phased out of scholarship, due to its oversimplification of complex local issues. Contemporary research shifts away from blaming NIMBY, because it fails to consider the sophistication of antipathy.⁷⁰

In a separate analysis, Burch et al. found prevalence of “Green-on-Green” contention throughout Oklahoma, where environmentally conscious individuals maintain their distaste for wind farms.⁷¹ Burch et al. argue that wind energy could bring great benefits to our fight against climate change. However, like many other forms of construction, implementation of the turbines can cause loss in biodiversity and induce change in prairie landscapes.⁷² They conducted a series of interviews to understand why someone who advocates for the health of the environment might be opposed to renewable energy. Their research demonstrated that most respondents prioritized environmental conservation over the perceived sustainability benefits of wind energy development, viewing the cons of large-scale development larger than the pros.⁷³ Therefore, opposition exists beyond the typical NIMBY structure, with criticism coming from both sides of the environmental policy spectrum.

⁶⁸ Woody, *Alternative views to Wind Energy Development*, 36

⁶⁹ Castleberry and Greene 2018, p. 1

⁷⁰ Burch et al., *Green on Green Conflict*, 3 ; Devine-Wright, Patrick. 2005. “Beyond NIMBYism: Towards an Integrated Framework for Understanding Public Perceptions of Wind Energy.” *Wind Energy* 8 (2): 125–39. ; Wolsink, Maarten. 2007. “Wind Power Implementation: The Nature of Public Attitudes: Equity and Fairness Instead of ‘Backyard Motives.’” *Renewable and Sustainable Energy Reviews* 11 (6): 1188–1207.

⁷¹ Burch et al., *Green on Green Conflict*, 1

⁷² Burch et al., *Green on Green Conflict*, 2

⁷³ *Ibid*, p. 19

Connecting the Landscape

The policy landscape demonstrates extreme discrepancies between wind developers and rural communities in Oklahoma. Corporate wind developers clearly benefit from existing energy eco-authority, perpetuating cycles of uneven development and limiting opportunity for energy democracy. This persisting dynamic is concerning given the urgency of a just transition, as expressed in the literature review.

Unfortunately, this conflict does not show any signs of resolution. In 2021, federal incentives like the Production Tax Credit (PTC) and the Investment Tax Credit (ITC) offer “1¢–2¢ per kilowatt-hour for the first 10 years of electricity generation for utility-scale wind,” according to the Office of Energy Efficiency and Renewable Energy⁷⁴. Such federal tax breaks empower cross-country corporate developers to propose new projects throughout the state of Oklahoma. In October of 2021, Enel Green Power began construction on their new wind farm, the 25 Mile Creek Wind Farm located in the panhandle. The project is the twelfth wind farm developed by the company, promising tax benefits of \$34 million to the local community⁷⁵.

When asked about the possibility of localization, Dr. Greene said it was simply impractical. He expressed that wind farms are multi-million-dollar projects, costing more than local coops would ever be able to afford to inherit. However, Dr. Greene also indirectly verbalized eco-authority, stating that locally built wind farms wouldn’t have a chance, as the corporate wind farms were already built in the optimal locations.

⁷⁴ “Wind Energy Policies and Incentives.” n.d. Windexchange.Energy.Gov. Accessed January 30, 2022.

⁷⁵ “With New Wind Farm, Enel Green Power’s Oklahoma Portfolio Exceeds \$3 Billion In Investment.” n.d. Accessed February 1, 2022.

This is exactly what rural communities are scared of, and it is what leading scholars warn us about in the literature review. The following case study is meant to visualize this urgency. Stories gathered reflect the sentiments of a small community living in fear of commodification and the unknown, brought on by the vague conviction of wind farm developers. It demonstrates the yearning for a way out of corporate extraction, and a community's exhaustion of all options to establish local resiliency.

Kingfisher Case Study

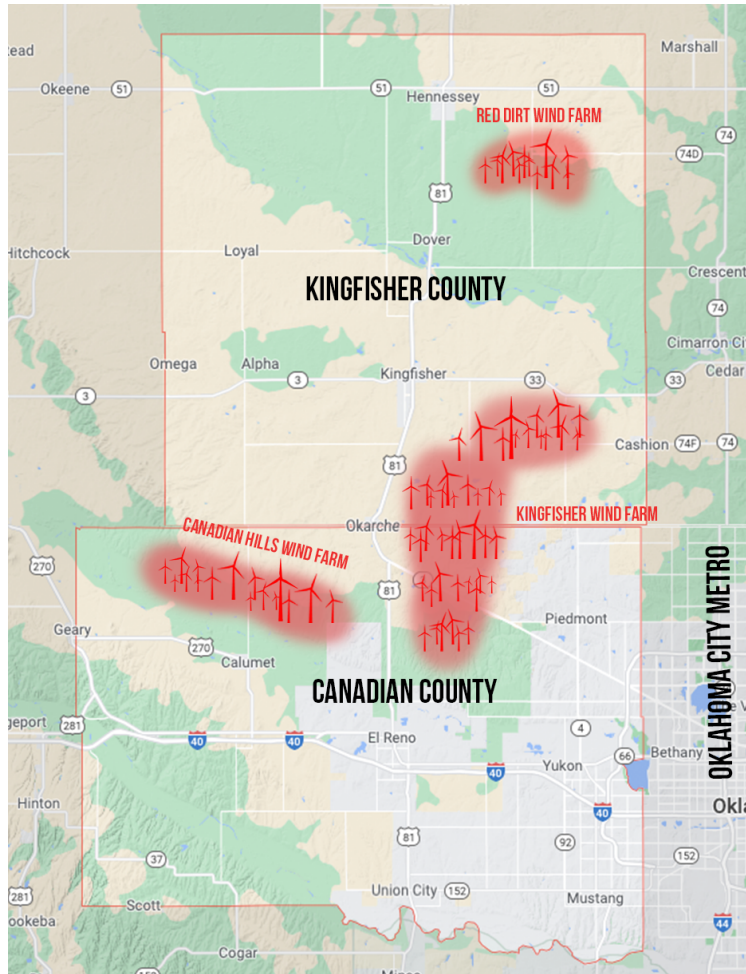
“The project has already torn apart our community by dividing neighbors and families against each other,” Brent Robinson, OWAA President said. “It has turned friends into rivals.”
“Rural Oklahomans are fighting a corporate giant, Apex, at our own expense,” Terra Walker said. “We’re seeking injunctive relief for violation of our rights, not monetary damages.”

Plaintiffs of Walker v. Apex
Kingfisher Times and Free Press June 17 2015

Figure 2. 2021 Map of Kingfisher and Canadian Counties, Oklahoma
(Key: Red Highlight– Rough Estimate of Wind Farm Territory. Turbines are not to scale, and geographic estimates are sourced from Wikimapia⁷⁶ and Open Energy Information⁷⁷.)

⁷⁶ “Kingfisher Wind Farm.” n.d. Wikimapia.Org. Accessed January 30, 2022.

⁷⁷ “Red Dirt | Open Energy Information.” n.d. OpenEI.Org.



The City of Kingfisher is located in northwestern Oklahoma, about an hour’s drive away from the nearest metro of Oklahoma City. It is a small, steady community of about 5,000 people, surrounded by agricultural farmlands on all sides.⁷⁸ The city sits within the larger county of the same name, Kingfisher County, which includes the smaller northern towns of Hennessey, Dover and Loyal. The map provided in **Figure 1** gives a visual guide to the area and its wind farms.

Towns are separated by about a ten-minute drive in either direction. To the southeast is the much smaller town of Okarche, which straddles the Canadian and Kingfisher county lines.

⁷⁸ “Census - Table Results.” 2021. Census.Gov. December 10, 2021.
<https://data.census.gov/cedsci/table?q=Kingfisher%20city.%20Oklahoma&tid=DECENNIALPL2020.P1>.

Oil and gas have a strong presence in the area and the industry serves as a prominent source of employment for the community. Despite their size, Kingfisher, Okarche, and Hennessey are home to vibrant communities of involved citizens, and the towns often host festivals and holiday celebrations of all kinds. Brian Walter, a local businessman, described in an interview that Kingfisher is the kind of place where families “shop” for a community– where everybody knows everybody.

2013

Apex Clean Energy Incorporated (shortened to “Apex”) is the implementing actor of the Kingfisher Wind Farm. According to their website, Apex is responsible for the development and construction of wind and solar farms across the country.⁷⁹

On February 3rd, 2013, the first article was published in the Kingfisher Times and Free Press regarding Apex Clean Energy Incorporated, titled, “Apex Taking Bids on Wind Farm Construction.” Within only three days, a follow-up front-page article detailed the distress of a couple, Gary Don and Joanne Taylor, who attended a local Rotary Club Meeting to voice their concerns about wind farm construction. The couple distributed maps to the members, claiming that:

“Our concerns are two-fold. Number one, we don’t want them [wind farms] in these areas of high population. And number two, what happens when the government subsidies go away? We’re pretty sure that if there’s no money available from the government, that these things will not be properly maintained, and may simply be abandoned.”⁸⁰

⁷⁹ “About Us.” n.d. Apex Clean Energy. Accessed October 27, 2021. <https://www.apexcleanenergy.com/company/>.

⁸⁰ “Apex Taking Bids on Wind Farm Construction,” Kingfisher Times and Free Press, February 3, 2013.

The couple expressed a myriad of other concerns, including noise pollution, blinking lights, and disruption of the rural way of life that Kingfisher people were accustomed to.

After the Taylors voiced their concerns, Apex representatives attended the same club meeting a week later to introduce the Kingfisher Wind Farm on their own terms. Apex representatives told Rotary members that their economic impact study predicted the Kingfisher Wind Farm to add \$3 million to the tax revenue in Kingfisher and Canadian Counties over its 25-year lifespan. As for the benefits for schools, representatives declared that the ad valorem tax would go to Okarche schools and surrounding cities, while Kingfisher schools were unlikely to receive money. They also refuted issues of adverse health impacts, claiming that the turbines would not be located more than 1,500 feet close to any home, which they assured prevents any physical harm.⁸¹

Several weeks later, on March 12th, 2013, Apex held an information session in Okarche to discuss the Kingfisher Wind Project.⁸² Terra Walker, an Okarche local and rural landowner, described the encounter in a personal interview:

“When we first heard about the windfarm and Apex, we had no idea who they were or what wind turbines really were. They sent us a few letters in the mail asking us to sign up for the wind farm but we didn’t know much about it. So we decided to go to one of their open houses that they hosted. When we got there, there was a man walking around with a laptop in his hand and asked us what our names were. When we told him he said he knew who we were and proceeded to show us a map of land with highlighted squares on it. He then told us that they’ve been trying to get ahold of us because we were one of just a few landowners who had not signed up with them yet and that all of our neighbors surrounding us had already signed. We left that night with a lot of questions and started researching...it was apparent that they all had the same line to get people to sign. They tell people that their neighbors have already signed, so why don't you? This led me to look into who had in fact signed. We quickly found out it was not true. They didn’t have very many signed up,

⁸¹ “Wind Industry Reps Discuss Wind Farm Plans,” *Kingfisher Times and Free Press*, February 17 2013.

⁸² “Area Windfarm Meetings Set,” *Kingfisher Times and Free Press*, February 27, 2013.

and for sure our neighbors that were surrounding us hadn't. We found out by just asking around and going to the courthouse and looking at the filings”⁸³

Clearly, these informational meetings did little to calm the nerves of locals. The community expressed skepticism and employed a critical eye from the beginning.

In early articles, the *Press* provided details about an Apex-developed wind farm in the nearby city of Calumet, named the Canadian Hills Wind Farm **See Figure 2.**⁸⁴ The newspaper interviewed the school treasurer from Calumet, who observed a delay in school benefits from the wind farm. She claimed that disputes in valuation between Apex and the state tax commission were to blame, even though the wind farm is fully operational. The treasurer predicted that it could take up to three years for them to resolve the issue.⁸⁵

Meanwhile, about thirty minutes from downtown Kingfisher, the city of Piedmont worked to ban turbines from sight altogether. The Piedmont City Council, in tandem with the Central Oklahoma Property Rights Association (COPRA), voted on August 28th, 2013 to establish an emergency city ordinance to ban wind turbines built three miles from Piedmont city limits.⁸⁶ The Council later voted to declare the turbines a public nuisance, and threatened legal action against Apex and the Kingfisher Wind Farm. In response to the ordinance, Apex representatives retorted that up to 43 turbines were already planned for construction in the designated buffer zone. In dismissing the ordinance, Apex assured that the company is “committed to working with the Piedmont Council to find resolutions.”⁸⁷

⁸³ Terra Walker, personal interview, January 30 2022

⁸⁴ “Area Windfarm Meetings Set,” *Kingfisher Times and Free Press*, February 27, 2013.

⁸⁵ *Ibid*

⁸⁶ “Piedmont OK’s Turbine Ban,” *Kingfisher Times and Free Press*, August 28 2013.

⁸⁷ “Piedmont Council takes Aim at Wind Farm,” *Kingfisher Times and Free Press*, September 1, 2013.

Landowners who signed a 30-year lease with Apex promised up to \$15,000 per year from the turbines on their land. Those who had already signed leases and lived within the Piedmont buffer zone were not happy about the city ordinance. In rebuttal, several landowners filed a lawsuit against the City of Piedmont, arguing that the nuisance claim based on health is a violation of their private land use.

2014

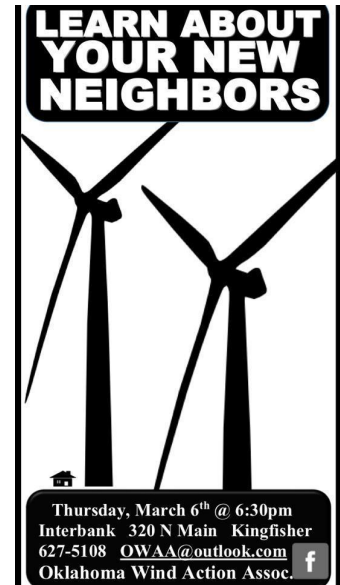
After months of negotiations, COPRA, the Piedmont City Council and Apex agreed to a “no-turbine area” in early December. It did not fill a three-mile buffer but kept the turbines away from neighborhoods and allowed the contracting landowners to continue their lease.⁸⁸ While the city of Piedmont found negotiation over the no-turbine zone, other cities impacted by the Kingfisher Wind Farm did not receive the same consideration.

Citizens of Okarche began to waver their concerns. On January 29th, the first Letter to the Editor was published in the *Kingfisher Times and Free Press* authored by Brent Robinson, a resident of Okarche and future President of the Oklahoma Wind Action Association (OWAA). Throughout the articles, Robinson often referred to Apex as “Apex Big Wind” and wrote with the thrill of a passionate advocate taking on the machine. In his first letter, he claimed that Apex was building turbines in areas where they promised they wouldn’t. He called the commercial wind industry a scam and argued that wind energy is only efficient due to taxpayer subsidies. He wrote “We can’t let an out-of-state Big Wind company dictate what our landscape will be forever. Without handouts, I think this town will survive⁸⁹.”

⁸⁸ Wertz, By Joe. n.d. “After Year-Long Fight, City and Developer Reach Deal for Piedmont Wind Farm | StateImpact Oklahoma.” *StateImpact Oklahoma | Environment, Education, Energy, Health And Justice: Policy to People* (blog). Accessed January 30, 2022.

⁸⁹ Brent Robinson, “Letter to the Editor,” *Kingfisher Times and Free Press*, January 29, 2014.

Later that week a “standing-room-only” protest of Okarche residents gathered at the Okarche Town Hall to voice their opposition to the city’s arrangements with Apex Clean Energy. Robinson was referenced in the Press as the “chief spokesman” of the group, alleging that the town should have gotten similar buffer-zone agreements as Piedmont. In response, the Mayor claimed that construction was out of their control, and the city did the best that they could. He offered that their concerns would be more useful at a higher level of government. The Mayor’s response is valuable here. It symbolizes the feeling of hopelessness from local governments in a battle with the turbines, as well as the growing division between landowners and their elected representation. His comment stresses the inability for small, rural Oklahoma communities to assert themselves as important actors amid commercial wind development. The meeting concluded with the suggestion of a Metropolitan Area Planning Commission (MAPC) for surrounding areas to unite in their protest⁹⁰. This idea was later voted down by the Okarche town board⁹¹.



In response to apathy expressed by Okarche city leaders, Robinson began organizing. He and other concerned citizens formed the Oklahoma Wind Action Association in early 2014 and set out to attract members from Okarche, Kingfisher, and Piedmont. On March 13th, a group of about 45 members gathered in Kingfisher to discuss the turbines. According to the *Press*, members discussed issues of “loss of control over land, disappearance of wildlife around the

⁹⁰ “Turbine Concerns draw crowd at Okarche/Metropolitan Planning Commission Possible Solution,” *Kingfisher Times and Free Press*, January 29, 2014.

⁹¹ “Okarche town board votes against requesting MAPC,” *Kingfisher Times and Free Press*, January 29, 2014.

turbines, destruction of roads and property, decreases in property values, damage to underground oil and gas pipelines and the effects of electricity in the ground and health concerns.”⁹²

On April 6th, 2014, in a Letter to the Editor, a local farmer, Rodney Mueggenborg wrote “I will support no wind towers.” He expressed that as a third-generation farmer, he had experienced unique issues with the turbines. Many farmers in Kingfisher are working tenants on other local farms, who use the land for agriculture. When the landowners lease their land to Apex, Mueggenborg explained that it is the farmers who have to deal with the “mess,” even though they didn’t agree to it⁹³. Mueggenborg expressed a complex issue in just one paragraph. In comparison with the Avis-McCune article of the same issue, Mueggenborg’s statement clashes with the condescending nature of her letter. It offers a window into the alienating treatment of community members in the shadow of Apex.

On April 16th, 2014, the Oklahoma Wind Action Association went to a Kingfisher City Commissioners meeting, seeking a federal injunction to pause the development and construction of Kingfisher Wind Farm. Using similar strategies as COPRA, the OWAA pushed to file suit against Apex Clean Energy based on public health impacts, hoping to establish a buffer zone around Kingfisher. Members from all over the community came to the city council meeting to voice their concerns. The *Press* reported that debate occurred for over two hours in a standing-room-only setting. Discussion involved the impact of turbines on property values, beautification, and negative health concerns. Relatedly, one member expressed the concern that due to the turbine’s depreciation over time, the promised benefits to the schools through ad valorem taxes would only go down. The meeting closed with discussion of a proposed formation

⁹² “Wind Meet Draws Crowd,” *Kingfisher Times and Free Press*, March 9 2014.

⁹³ Rodney Mueggenborg, “Letter to the Editor: No Wind Towers,” *Kingfisher Times and Free Press*, April 6, 2014.

of a city Annexation Committee, intended to extend the city's borders so as to prevent turbine construction.⁹⁴

No turbine buffer zone discussed

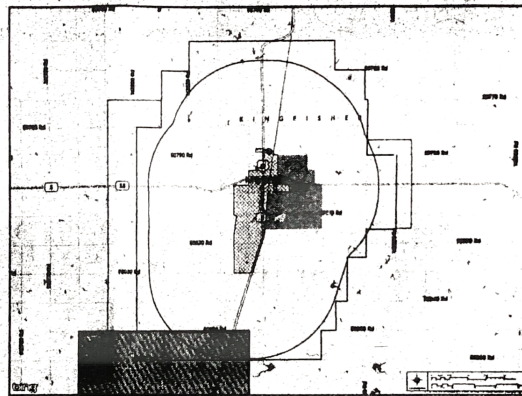
Kingfisher city commissioners voted unanimously to reappoint City Manager Dave Slezickey for another year as part of a lengthy monthly agenda Monday night.

Slezickey is starting the second year of a three-year contract approved by the commission last year, but the city charter still requires an official vote to reappoint him each year.

The city manager was one of five annual reappointments approved after a brief executive (closed) session. Others included City Clerk Bill Tucker and Treasurer Anita James, both salaried positions, and contractual appointments for City Attorney Jared Harrison and Municipal Judge Randy Mecklenburg.

Mayor Steve Richards and commissioners Janet Clark, Roxanne Alexander and Ken Davis all voted to approve the appointments. Commissioner Jeff Hyatt was absent.

Commissioners took no action on an agenda item concerning the police chief, fire chief and municipal building official after Slezickey said



PROPOSED BUFFER ZONE – Apex Clean Energy presented this map at Monday's city commission meeting outlining the evolution of a proposed no-turbine zone resulting from negotiations with city representatives. The red line represents the company's original offer of an approximate three-mile buffer, the purple line is an expanded zone and the green line represents the final expansion. Commissioners took no action on the proposed agreement.

From this point on, things began to move quickly for the OWAA and Apex developers. From April 2014 to the beginning of 2015, the *Kingfisher Times and Free Press* published a series of articles centered on both Apex and OWAA's presence at Kingfisher City Commissioner meetings. With the OWAA pushing for legal action, Apex attended a meeting bringing Dr. John Scott Greene, formerly mentioned in this paper, as a scientific source to debunk all health concerns related to the wind turbines. He explained research related to the shadow flicker and noise pollution, asserting that any litigation surrounding the health impacts of the turbines would be easily disproved in court. Representatives concluded by offering the city a resolution of negotiation, rather than litigation⁹⁵.

After a push for annexation through August, the OWAA was fed up with waiting. They were determined to set a legal precedent to fight against corporate wind, claiming that it had

⁹⁴ "City Commission Mulls Wind restrictions, OWAA requests injunction, offers to foot legal expense," *Kingfisher Times and Free Press*, April 6, 2014.

⁹⁵ "Apex to City: Let's negotiate, not litigate- Wind Company Reps Speak at Special Meeting," *Kingfisher Times and Free Press*, April 27, 2014.

never been done before. Terra Walker, a named plaintiff for the lawsuit, explained to me her motivation for taking legal action:

“Looking back, I really don’t think we could have done anything else. We started at the city/town level, went from there to county, then to state. We didn’t have any other option but to file suit. We decided to file the lawsuit because we had exhausted all other options...”⁹⁶

Walker and the OWAA filed a federal lawsuit to halt construction of two nearby Apex wind farms, on the condition of impact on property use and value, and adverse health effects— despite its lack of scientific standing.⁹⁷ The lawsuit followed with an announcement that Apex had already sold the Kingfisher Wind Farm to First Reserve, a global investment firm. With this move, Apex began bolstering its financial investment in the wind farm, indicating that they had no intention of backing down.

2015

Apex affirmed that the wind farm would bring money to local school districts, stating in a January 2015 press release that schools in Kingfisher and Canadian counties would receive \$1.5 million per year in new tax revenues.⁹⁸ By the end of January, Apex had requested to dismiss the OWAA lawsuit. But Federal District Judge Timothy De-Giusti denied the dismissal, noting that although the plaintiffs' claims to anticipatory nuisance lacked standing for a federal lawsuit, he granted the plaintiffs time to amend their petition to abide by the rules of a class action lawsuit.⁹⁹

⁹⁶ Terra walker, personal Interview 30 January 2022

⁹⁷ “Wind farm, federal suit both going forward,” *Kingfisher Times and Free Press*, January 14, 2015.

⁹⁸ “Apex Announces Wind Farm Sale; OWAA questions alleged Illinois payment issue,” *Kingfisher Times and Free Press*, January 25, 2015.

⁹⁹ “Wind lawsuit survives motion to dismiss,” *Kingfisher Times and Free Press*, February 1, 2015.

Meanwhile, Apex was busy requesting permission for 49 different road crossings in Kingfisher county, agreeing to bury energy-transmitting polyethylene pipes six feet deep.¹⁰⁰ However, the county tabled its approval after twenty members of the OWAA attended the commissioners meeting, protesting any action that would permit the construction of turbines as their lawsuit was pending¹⁰¹. The OWAA attended the next three county commissioners' meetings to advocate against the permits. As construction proceeds elsewhere, Robinson writes in a Letter to the Editor:

"I received a call from a leaseholder who was very concerned and upset. They asked me if I knew how to get ahold of anybody from Apex and if I could help them. After numerous tries and going to the courthouse they still haven't heard back from Apex. They told me that they had lease agreements for certain parcels of land but Apex also listed land they claim was not agreed to be leased, again... If I ran my business this way I would be ashamed and some heads would roll, or I would let it be known I was very upset. I can't understand how people can defend such a blatant arrogance and bully mentality from any company and them claiming to be good neighbors."¹⁰²

His letter reflects the wind opponents' remaining concerns of corruption and greed associated with Apex.

In March of 2015, Apex threatened to sue Kingfisher County if they refused to approve the road crossings. The city immediately approved all 49 road crossings following the threat. Soon thereafter, Newfield Exploration Energy, an oil and gas company with contracts in the area, filed suit against Apex in hopes of blocking the progression of wind farm construction. They alleged that the company did not give Newfield enough notice before they broke ground. On the issue, the OWAA is supportive of Newfield. They compared the value of oil and gas to that of the wind industry, stating that oil and gas has a long-term effect on local growth, while Apex

¹⁰⁰ "Wind Farm to request 49 road crossings," *Kingfisher Times and Free Press*, January 8, 2015.

¹⁰¹ "Wind farm opponents object to road crossings," *Kingfisher Times and Free Press*, February 4, 2015.

¹⁰² Brent Robinson, "Letter to the Editor; Turbines Discussed," *Kingfisher Times and Free Press*, February 18, 2015.

only has short term interests in mind.¹⁰³ The county commissioners eventually approved the motion, despite a full-house of protestors at the meeting.¹⁰⁴

In response, Robinson returned with another fiery Letter to the Editor, titled, “Apex gets its way again.” He claimed that Apex was bullying its way through construction, stating that he’s “never seen a more obvious display of a company using threats of lawsuits...”¹⁰⁵

The Newfield suit eventually made its way to the courtroom in late March of 2015. Apex agreed to a “stand-down” and halted construction in certain areas for fifteen days while Newfield reviewed information regarding the turbine project. In their argument, Newfield claimed that Apex sent a two-page notice to local operators and lease owners regarding construction, which did not provide sufficient information for proper review. Apex claimed that they had been in negotiation with Newfield throughout the entire process, and that their notice was sent in a timely manner. However, Apex concluded their argument by listing the financial loss associated with a potential halt in their construction, asserting that:

“\$452 million in private capital already has been invested in the Kingfisher Wind Project, and a 30-day delay would cost an estimated \$900,000 in losses, as well as risking the entire project if the Dec. 31 deadline isn’t met to qualify for tax credits.”¹⁰⁶

They later state that Newfield’s claims are “speculative and nominal,” whereas the financial impact of an injunction on their development process would amount to hundreds-of-thousands of dollars in losses.¹⁰⁷

¹⁰³ “Wind opponents back at a county meeting, Newfield concerned about impact on oil production,” *Kingfisher Times and Free Press*, March 11, 2015.

¹⁰⁴ “County OKs 49 Apex road crossings,” *Kingfisher Times and Free Press*, March 2015.

¹⁰⁵ “Letter to the editor: Apex gets its way again,” *Kingfisher Times and Free Press*, March 22, 2015.

¹⁰⁶ “Newfield, Apex agree to 15-day ‘stand-down’: Tuesday hearing canceled; lawsuit still open,” *Kingfisher Times and Free Press*, March 29, 2015.

¹⁰⁷ *Ibid*

As construction became more prevalent, Kingfisher City Commissioners voted to urge Kingfisher County to establish a MAPC, a Metropolitan Area Planning Commission to help regulate industrial development outside of the city. This came as an alternative to the previously proposed annexation, as it would have turned into a costly venture for the city.¹⁰⁸

By July of 2015, the OWAA requested an expedited hearing on their suite due to the visible construction of the turbines.¹⁰⁹ Meanwhile, another lawsuit entered Apex's radar in the form of an application filed by Merit Energy. The oil and gas company sought to temporarily halt construction of Kingfisher Wind Farm, on the claim that potential leaks in the transmission lines would cause corrosion of their metal pipeline, which is located underneath the proposed lines.¹¹⁰ The application was granted by a district judge, and construction in some areas stopped for five weeks until a hearing at the Kingfisher County District Court. This threatened Apex's goals to finish construction by December 31st in order to meet the federal tax credit deadline. By April, Merit filed a motion to dismiss the case.¹¹¹

In December, an Apex representative told the *Press* that construction will surpass the December 31st deadline by three to six months, predicting that the project will be operational by mid-2016. However, since the federal production tax credit was renewed by Congress in 2015 for the next five years, Apex was no longer bound by their original deadline. Wilson concludes that Apex is looking forward to their court date with the OWAA. By the end of 2015, Apex had received three Deal of the Year Awards for their work with Morgan Stanley to sell energy from

¹⁰⁸ "City takes new tack to counter wind: City commissioners urge county to consider MAPC," *Kingfisher Times and Free Press*, March 13, 2015.

¹⁰⁹ "Apex opposes expediting federal suite," *Kingfisher Times and Free Press*, June 17, 2015.

¹¹⁰ "Agreement reached on temporary wind delay," *Kingfisher Times and Free Press*, July 12, 2015.

¹¹¹ "Trial date set in Kingfisher Wind Lawsuit," *Kingfisher Times and Free Press*, August 16, 2015.

the Kingfisher Wind Farm to the Southern Company to power a service across the country in Florida.¹¹²

2016

Soon after the Kingfisher Wind Farm had finished construction in mid-2016, Apex began contesting its tax valuations in Kingfisher County. Much like the situation in Calumet in 2013, Apex was up against the county assessor in arguing that their turbines should be valued at much less than what had been proposed. The assessor had originally valued ad valorem tax rolls at \$321,381,200, while Apex disputed that the amount was closer to \$169,331,000. Following the claim and a trial, the Kingfisher County Board of Equalization decided to value the turbines at \$275,839,357. In addition, the board voted to deny Apex the five-year tax exemption from ad-valorem tax payments, which had been renewed by Congress.¹¹³ Apex was not going to take no for an answer, their eco-authority would not be threatened. Within the following week, Kingfisher Wind LLC filed a petition to hold trial to continue to dispute the valuation and allow for the five-year exemption¹¹⁴.

In late September of 2016, the OWAA finally had their day in court. After two years of waiting, the \$425 million Kingfisher Wind Farm turbines were already finished with construction, spinning, and producing energy for the Southwest Power Pool¹¹⁵, Morgan Stanley,

¹¹² “Kingfisher Wind Wins Platts Financial Deal of the Year | Apex Clean Energy.” n.d. Apexcleanenergy.Com. Accessed October 1, 2021.

¹¹³ “Wind farm loses local tax appeal: Equalization board denies exemption, upholds valuation” *Kingfisher Times and Free Press*, August 3, 2016.

¹¹⁴ “Wind project asks court to allow 5-year exemption,” *Kingfisher Times and Free Press*, August 10, 2016.

¹¹⁵ “Wind Farm, Lawsuit both move forward,” *Kingfisher Times and Free Press*, December 27, 2015.

and the Gulf Power facility in Florida.¹¹⁶ The OWAA, which had amassed over 400 likes and 502 followers on Facebook, posted calls to action. They requested that as many people as possible fill the courtroom to hear the judgment on the day of the hearing. And yet, after years of advocating on their behalf to the local governments, the OWAA's pathway to injunctive relief was dismissed mid-October by federal judge De-Giusti, on the claim that the plaintiffs did not show "a reasonable probability" that the turbines would cause adverse health effects, as this was the sole argument they were reduced to.¹¹⁷ Their primary request was to move the turbines at least 1.73 miles away from homes, based on a congressional law passed a year earlier stating that turbines could not be any closer to schools, airports, and hospitals. However, this law did not affect private homes, and Judge De-Giusti ruled that the injuries proposed by the wind farms were "speculative at best."¹¹⁸ He indicated that on the basis of public health, this was all that he was able to rule on. In response, a Walker was quoted in the *Press*:

"To say that we are extremely disappointed is putting it mildly. This is an injustice to the people of Oklahoma who need protection from massive corporate wind companies who can do whatever they want."

¹¹⁹

Upon later reflection, Walker expressed to me in an interview,

"We were devastated. I knew the court system took time, but I also feel Apex hurried up and finished to make it harder for a judge to take them down versus just halt construction."¹²⁰

With the decision granted by the Judge, the OWAA had fully exhausted their last possible mechanism for protest, and no precedent had been set. Less than a week after the ruling, the

¹¹⁶ "Wind Challenge Still Spinning: Tuesday hearing may (or may not) end 2 year battle," *Kingfisher Times and Free Press*, September 25, 2016. ; Apex Clean Energy. (2021, October 1). *Kingfisher wind wins Platts Financial deal of the year*. Apex Clean Energy.

¹¹⁷ "Judge dismisses lawsuit," *Kingfisher Times and Free Press*, October 16, 2016.

¹¹⁸ *Ibid*

¹¹⁹ *Ibid*

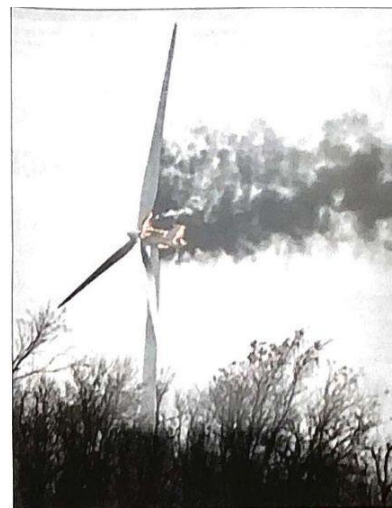
¹²⁰ Terra Walker personal interview 30 January 2022

Kingfisher Times and Free Press reported that work had begun on another wind farm northeast of Kingfisher– the Red Dirt Wind Farm– developed by Tradewind Energy and Enel Green Energy.

-2021

On January 12th, 2022, an Apex wind turbine engine in the Kingfisher Wind Farm caught fire.¹²¹ As of right now, Apex is still working on an explanation.

Despite the occasional turbine fire, most of the blades are still spinning. 149 wind turbines scatter the Kingfisher Wind Farm¹²², 135 in Canadian Hills¹²³, and 95 in the Red Dirt Wind Farm. Lack of funding to local school districts remains uncontested in courts, after seven years of delays. The *Press* reports that Hennessey Public Schools are still owed \$1.8 million in protested energy tax dollars¹²⁴, while the broader Kingfisher County is owed over \$6.1 million¹²⁵.



TURBINE FIRE — A wind turbine caught fire sometime Saturday at Kingfisher Wind Farm southeast of Kingfisher at the intersection of NS 2920 and EW 840 roads. Okarche Fire Department was notified of the fire shortly after 12:30 p.m. and responded with five firefighters and three units. Chief Steve Liebl told the Times & Free Press. Trucks from Big 4, Kingfisher and Cashion also were dispatched but turned back when it was determined they weren't needed. Liebl said representatives of Apex Clean Energy also were at the scene. The fire was mostly confined to the engine housing but also partially burned the blades and about three acres of grass below, Liebl said. Two similar fires have occurred at the wind farm near Calumet, but Liebl said this was the first reported at the Kingfisher farm. An Apex representative quoted in the *Enid News* said the turbine was taken offline and the cause of the fire is under investigation. Photo Credit: Courtney J. Arling

Conclusion

The Kingfisher case study demonstrates ongoing efforts by the local community to establish their sense of eco-authority. Local non-profit advocacy groups, in tandem with local

¹²¹ Reid, Christine. 2022. "TURBINE FIRE." Kingfisher Times & Free Press. January 12, 2022.

¹²² "Kingfisher (USA) - Wind Farms - Online Access - The Wind Power." n.d. Thewindpower.Net. Accessed January 30, 2022.

¹²³ "Canadian Hills Wind (USA) - Wind Farms - Online Access - The Wind Power." n.d. Thewindpower.Net. Accessed January 30, 2022.

¹²⁴ Walter, Brian. n.d. "Hennessey School Has \$3.5 Million Carryover, Is Owed \$1.8 Million in Wind and Oil Back Taxes | Kingfisher Times & Free Press." Kingfisherpress.Net. Accessed January 30, 2022.

¹²⁵ Reid, Christine. 2019. "Ongoing Tax Appeals Hold Hostage over \$6.1 Million | Kingfisher Times & Free Press." Kingfisherpress.Net. September 25, 2019.

government, seemingly used every tool at their disposal to prevent wind farm construction. They organized populous coalitions, attempted annexation, and a Metropolitan Area Planning Committee, and even brought a federal suit with no precedent. Every attempt to establish their rural resilience was turned down by a government that refused to oversee the corruption they were incentivizing. As observed, the eco-authority of the wind industry squashed any attempt at resistance. No consideration was given to the legitimate concerns brought by the opponents, and construction continued like business as usual. By the time state actors started to understand the taxpayer disaster they caused, it was too late. The lawsuit was dismissed, and the turbines continue to spin.

The behavior of Apex structurally reinforces unequal power structures in several ways. Their willingness to sue the county, and their disregard for the wellbeing of the community shows the uncapped power and eco-authority of the commercialized wind industry in Oklahoma. Suits brought against Apex by Newfield and Merit Energy to slow construction, only further entrenched the regional preference for oil and gas. Their presence only strengthened oil and gas ties, rather than offering sustainable, mutually beneficial clean energy solutions. Throughout construction, Apex contradicts the precarious nature of state and federal tax incentives, a consistent concern voiced by locals. These incentives, such as the Oklahoma Zero Emissions Tax Credit, were formally dismissed by its guiding legislators as a scam. And yet, Apex persisted in its ill-promise of local benefits.

The actions shown in my case study demonstrate that there is no present avenue for legitimate protest commercial wind development in Oklahoma. With the growing need for a just energy transition as detailed in the literature, such large-scale development serves as a barrier to

localized democracy. In a community where members have demonstrated the full capability to organize and grow under closed feedback loops, energy democracy shows extreme potential. Yet, with the rhythmic growth of centralized wind development and a strong historical eco-authority, progressive resilience may never be an option for rural Oklahoma.

Further, this narrative threatens the future of essential climate change mitigation. The literature suggests that as we begin to question the power structures that placed us in precarious anthropogenic conditions, we will begin to see the causation in centralized energy-extraction methods. With the literature proposing the most reliable solution in localized energy democracy, the work of Apex and incentivizing state actors are actively prohibiting any opportunity for the restoration of rural resilience.

Suggestions for Further Research

This research begs for a deeper look into the potential for rural Oklahomans to stand up against the wind industry's eco-authority. A study exploring the political and historical motivations behind environmental skepticism in the rural Great Plains would be an interesting addition to this research. Further methods should be established for how to introduce rural communities to the concept of energy democracy. How could localization efforts begin? What is the best way to motivate the return of local growth, through the structural reversal of an energy transition? How would this notion be challenged by those who are skeptical of environmental policy? Most of all, future research calls for the explicit integration of rural identities into the conversation of energy transition, because this literature has shown the detriment when local input is ignored.