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The Role of Environmental NGOs in the Renewable Energy–Environmental Interface

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Abstract

Nongovernmental organizations (NGOs) play an important role in the interface between business, government and society, including serving as a link between diverse stakeholders, amplifying public visibility, and serving as a watch dog. This research seeks to understand the involvement and experience of environmental NGO (ENGO) staff members in the environmental planning of utility-scale wind and solar projects. We conducted 19 one-hour interviews with individuals representing 13 ENGOs which were located in or had projects within North Dakota, South Dakota, Nebraska, Kansas, Iowa, Oklahoma, and Texas. We found that, overall, engagement with the renewable energy industry was mixed, with some organizations being very involved and others having limited to no engagement. Participants also shared positive as well as more challenging engagement experiences they have had. Overall, ENGOs see a number of potential opportunities to engage more in renewable energy planning, particularly in collaboration with renewable energy developers, to move renewable energy deployment forward while balancing land use and environmental concerns.

Keywords: renewable energy; climate change; environmental regulations; environmental nonprofit

1. Introduction

Renewable energy requires space to be built; its infrastructure is much more dispersed than fossil fuel energy sources, in the case of wind, or requires a larger volume of land than fossil fuel energy sources, in the case of solar [1]. The immense land use requirements and geographic nature of development make renewable energy more difficult to site and lead to an uneven distribution of the costs and benefits of development [2]. As Gross [1] noted, "For renewable electricity, the site "chooses" the project, rather than the other way around" (p. 8). Gaur et al. [3] further make this point when they define the siting of utility-scale solar energy as a "land use issue as much as it is an energy issue" (p. 2). The environmental considerations for a project, therefore, are an important piece of the development puzzle, and there are a number of different stakeholders which are engaged in navigating these considerations. Environmental nongovernmental organizations (ENGOs) are one set of stakeholders which have been actively engaged in the conversation surrounding renewable energy development. While it may seem as if nongovernmental organizations (NGOs) play a tangential role in the implementation of environmental regulation, the literature recognizes that these groups can influence policy and the implementation of policy. As noted by Dahan et al. [4], "Nongovernmental organizations. . .have become important

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actors influencing the conduct of business, including business-government interactions and the broader role of business in society".

ENGOs specifically can work on a range of scales, from focusing on small-scale or local changes in environmental quality or addressing local environmental challenges to pushing policy implementation at the state or federal level to bring about more broad-scale changes [5]. ENGOs played an active role in promoting the deployment of renewable energy development as early as the 1970s after the oil embargo in 1973 [6]. Now that renewable energy deployment is more common and policies exist to support future development, ENGOs find themselves confronted with a disconnect in priorities where now, some organizations are concerned about the potential environmental impact of large-scale deployment of wind and solar. This balance between the climate mitigation benefits of renewable energy, which ENGOs historically rallied behind, and the local environmental impacts is termed the "green-on-green" conflict [7]. As Warren et al. argue, the green-on-green conflict represents a complex challenge where there are valid "green" arguments on either side of the debate. ENGOs may find themselves advocating for renewable energy because of its climate change benefits, opposing renewable energy because of its landscape impacts, or in an awkward middle ground where they support the general deployment of renewable energy but oppose it in particular contexts [7]. While the history of environmental advocacy has been largely pushing forward renewable energy development, the present-day situation is different.

Our research uses interviews with individuals who work within ENGOs of multiple scales on renewable energy to examine how different ENGOs work within the sector, what they see as their role in development and how they view development, and what their relationship with other stakeholders in development looks like. We focus on the traditional roles conceptualized for ENGOs in business and governance and apply them to a sector which has not been explored in depth but in which we believe their role will become increasingly important. We also examine how ENGOs navigate the green-on-green conflict and how it manifests itself in organizational goals and approaches to renewable energy development engagement strategies. As land use planning and decision-making for renewable energy are very much so dependent on the local context of siting and associated concerns, our research also seeks to begin to explore how ENGOs of different sizes and locality focuses approach considerations of renewable energy siting and land use. We argue that the renewable energy sector, with its unique regulatory environment and complex set of challenges related to siting and development, represents a valuable case study to understand the role of ENGOs in land use planning as well as their relationship with businesses and government in the process.

2. Literature Review

2.1. NGOs and the Business/Government Interface

The literature explores the relationship between businesses, governments, and non-profit organizations in a number of ways, but they can be broadly grouped into three categories of relevance to this research: broad motivations for the relationship [5,8], the role of NGOs in the regulatory environment [9,10], and NGO contributions to corporate social responsibility [11,12]. These three themes in the literature each provide a valuable piece of the framework to understand how ENGOs engage in the renewable energy sector.

2.1.1. NGOs and Their Relationship with Businesses

According to ref. [8], there are a number of motivators which may drive businesses to engage with NGOs and what that engagement looks like. These include whether or not a business has internal programs to encourage engagement, if NGO goals are a strategic

fit, a business's trust in an NGO, past experiences with the NGO, and outside pressure to engage with NGOs. While the reasons and motivations for business engagement with NGOs have been explored in depth, the reasons NGOs may engage with businesses and what they see as the challenges and/or benefits are studied much less.

The literature on why NGOs may engage with businesses includes the following reasons:

1. NGOs can gain access to a "seat at the table" or visibility and power in certain situations, increasing their legitimacy in the business world [4,5,13].
2. NGOs can gain access to financial resources [5,14].
3. NGOs may fill a "regulatory vacuum" in sectors where they perceive a lack of regulations, serving in a "watch dog" role [4,10].
4. NGOs gain access to information sharing and new skills in addition to businesses [5,13].

Nahi [15] identified, in their study on NGOs and businesses in sustainability, a series of factors which bound the capabilities of NGOs to engage with business. These factors include the breadth of experience and knowledge of the NGO, the power relations between the NGO and the business they are working with (especially when the business contributes funding), sectoral differences (of particular relevance when thinking about the engineering aspects of renewable energy), and overall trust from both sides [15]. Given that environmental problems are becoming much more complex and not easily answered by a single stakeholder group—i.e., businesses or government cannot handle them alone—it is important to understand why ENGOs might engage with businesses in solving these complex problems.

2.1.2. NGOs and Environmental Governance

There is a growing interest from various regulatory bodies in shifting from command and control approaches to environmental compliance towards more collaborative, relationship-based approaches [16]. This is particularly relevant to regulations within the renewable energy sector, where much of the regulations already rely on voluntary behavior [17]. This dichotomy in regulatory approaches can be thought of as a "regulatory dilemma," which Potoski and Prakesh [18] define as the choice between "deterrence and flexibility" of regulators and "evasion and self-policing" for businesses. From the perspective of ENGOs, this can result in the belief that firms will take advantage of the flexibility and a concern for the potential environmental impacts of more flexible policies. When the regulatory environment is viewed as this dichotomy, it connects to the traditional way in which the role of ENGOs has been framed in environmental governance, as a "watch dog for society" [10].

In their review of the academic literature, Laasoonan et al. [10] found that this idea of an adversarial or pressure-based relationship between business and NGOs in the regulatory environment was the predominant framing in the academic literature. They note, however, that there are additional new, more problem-oriented relationships being recognized that focus on collaboration as partners versus adversaries. The authors highlight that, in some cases, an adversarial relationship could be beneficial, and that we cannot focus only on "win–win–win"-type scenarios, which romanticize collaboration. Sometimes, conflict within a relationship can be beneficial. This is a particularly valuable point as this research seeks to explore the role of ENGOs in the renewable energy sector. NGOs in general can serve in multiple other roles beyond being a watch dog.

2.2. ENGOs and Landscape Planning

Utility-scale renewable energy developers are shown to rely on ENGOs for site selection assistance and coordination effort among developers, regulators and host communities. These types of resources are seen as desirable services an ENGO can provide within

developer–ENGO engagements [19,20]. Positive practice in renewable energy site selection should involve landscape planning considerations beyond the immediate functional requirements of how an area can serve as a logical space for a utility-scale renewable energy project. The clearance and grading of ample space, appropriate angles for solar panels, and connectivity to transmission infrastructure in the example of solar deployments form only one dimension of a complex set of criteria that need to be considered in planning utility-scale projects. As coordinators, ENGOs further navigate and incorporate both site–local stakeholder connections and the influence of larger policy scopes toward equity among achieving the development of a utility-scale project and its surrounding, local conservation goals, cultural resources and economies [21]. Effective landscape planning as facilitated by ENGOs serves both the protection and conservation of the environment with consideration of cultural interactions between people and nature [22].

In this role, ENGOs are often situated at points of conflict between competing green interests, or inconsistencies among the renewable energy transition and conservation goals between local and enclosing national scales [23]. Given the requirements of policy and the goals of project stakeholders, conservationists and the public, ENGOs facilitate compromise within these constraints with knowledgeable characterization of the site, and an ability to communicate across the component interests of a project. Despite their lack of direct regulatory power, ENGOs work to balance the needs of the land, the people and progress in the renewable energy transition.

2.3. The Energy Transition and ENGOs

This research utilizes the considerations of the relationships between NGOs and business as well as their role within environmental governance and orients it within the context of the energy transition. Sine and Lee [6] outlined how, in the 1970s, in light of the Saudi Arabian oil embargo, environmental organizations like the Sierra Club and Audubon Society, which had historically been focused on traditional conservation issues, began to promote energy conservation, which included both energy efficiency and renewable energy messaging. Environmental organizations "construct[ed] and propagat[ed] the 'problem' of environmental degradation and industrial pollution and the 'solution' of renewable energy" [6]. As the energy transition became more prominent in the 1990s and early 2000s and conversations about climate change heightened, large, national organizations like the Sierra Club and Friends of the Earth launched climate change campaigns where they saw energy concerns and considerations become permanent components of their advocacy portfolio [24]. Presently, ENGOs continue to engage in the energy transition and moving progress forward, and did so as recently as May of this year, when a consortium of groups filed a lawsuit against the Trump administration's effort to ban new wind energy projects [25]. The story of ENGOs, the environmental movement, and the push for clean energy is extensive, and it is clear that ENGOs have a role to play in continuing to move deployment forward.

While the literature has examined how ENGOs more broadly have engaged in the renewable energy sector (such as Pacheco et al.'s [26] examination of technology-oriented social movement organizations in facilitating acceptance of wind energy), there has been less attention on how more traditional conservation- or biodiversity-focused ENGOs have engaged in the renewable energy sector. This research seeks to begin to fill this gap, also examining how these ENGOs balance local environmental priorities with large-scale renewable energy deployment interests and goals, which leads into their navigation of the green-on-green conflict.

The Green-on-Green Conflict

The green-on-green conflict was first outlined by Warren et al. [7], who described it as a "new kind of environmental controversy." This conflict is particularly unique because there are valid "green" arguments on both sides of the debate—a global reduction in greenhouse gas emissions versus local environmental concerns such as species and habitat impacts [27]. In a paper highlighting siting challenges of renewable energy projects, Kahn [28] says the following: "For a public official, hearing environmentalists savage renewable energy projects is like witnessing a family feud. . . They are surprised to find wind, biomass, and geothermal projects under attack by erstwhile allies" (p. 29). While this conflict has been presented in the academic literature, it is also present within popular media. One editorial from the Wall Street Journal in 2020 noted that "not in my backyard" (i.e., NIMBY) has become "build absolutely nothing anywhere near anything" or "BANANA" in response to an editorial outlining ENGO opposition to a solar project in California [29,30]. There are other examples of this conflict between renewable energy deployment and environmental concerns, including: recent proposed development near Cheyenne Bottoms in Kansas [31], conservationist opposition to a solar project which would remove Joshua Trees [32], and environmental groups suing to stop a Wisconsin transmission line which would support renewable energy deployment that crosses through a wildlife refuge [33]. It is important to note that this research does not place value on one side of the argument more than the other but seeks to understand how ENGOs navigate this challenge.

The environmental concerns that may surround a project are often a leading reason that projects are delayed or canceled [34]. As renewable energy development continues, these environmental concerns and the associated conflict of development versus the environment will only become more pronounced. This conflict is amplified within renewable energy development given the scale and spread of energy infrastructure, which results in multiple governing authorities and actors at a variety of scales, all with different perspectives on the environmental regulation of renewable energy. The environmental impacts of energy transitions represent a unique governance challenge, as they require a balance of large-scale infrastructure required for energy production and distribution with local and contextualized solutions [35]. ENGOs are in a unique space where they are trying to navigate a balance between renewable energy deployment and other environmental concerns.

2.4. This Research

Given the potential environmental concerns of large-scale renewable energy deployment and that regulations surrounding the renewable energy sector are limited and can vary immensely at the state and local level, the role of ENGOs in fostering environmental responsibility amongst renewable energy developers is likely to be very important and represents a valuable case study for more vague regulatory environments. This research also looks to understand what the balance between environmental concerns and renewable energy deployment looks like for ENGOs and how this impacts what their relationship with the renewable energy industry looks like, expanding on the current conceptualization of the green-on-green conflict.

3. Materials and Methods

For this research, we focused on utility-scale solar and wind energy as our renewable energy technologies of interest. They are currently governed under many of the same policies, with solar development often being guided by current wind energy regulations given the infancy of utility-scale solar compared to wind. They are also the most commonly deployed renewable energy technologies in our region of interest. We interviewed ENGOs who work or focus on projects or are based in the Great Plains region, and we sought

out individuals who were engaged with renewable energy-related tasks or conversations within their organization. We purposefully selected seven states as our area of focus: North Dakota, South Dakota, Nebraska, Iowa, Kansas, Oklahoma, and Texas. These seven states are predicted to see continued development of both wind and solar and have similar ecosystems and environmental concerns [36,37]. These states also have a similar level of state regulatory power, except North Dakota, which does have an approval process that includes potential environmental concerns of projects [36,38].

To explore the role of ENGOs in the renewable energy sector, we conducted confidential, semi-structured interviews with staff members from various local, state, regional and national ENGOs (interview guide included in Supplementary Materials File S1). This research and the associated interview material were approved by the university's Institutional Review Board (#14823). We requested to speak to any staff member who felt that they could speak to their organization's involvement in the renewable energy sector. We did not specify what specific experience staff members needed to have and interviewed any staff member willing to discuss their experience with us. All interviews were conducted via Zoom to increase our geographic reach, and interviews were recorded with the consent of participants. If a participant did not consent to recording, detailed notes were taken and analyzed along with the interview transcripts.

These interviews were conducted in March through October of 2023. We used a snowball sampling approach to recruit participants, reaching out to contacts in ENGOs and then asking them to refer others upon completion of the interview [39]. We then expanded our reach by posting on LinkedIn requesting participants and submitting contact form inquiries or sending e-mails to organizations which we did not have contacts for. In total, we contacted 21 ENGOs to ask if they would be willing to participate; for some organizations, we contacted multiple individuals, especially for those organizations that had both staff in individual states and staff at the national level. This final number of ENGOs contacted represented extensive outreach conducted by the research team to ensure that all potential organizations which may be engaged in the topic of interest for this research had an opportunity to participate.

Our interview guide for our semi-structured interviews was developed in coordination with our literature review, as discussed previously. To analyze the interview data, we coded our transcripts in NVivo^{TM} 15 using an inductive coding approach, where our codes were developed in response to emerging themes found in our participant responses to the open-ended questions asked during our interview [39]. Codes were added throughout the analysis process, and all interviews were reviewed again once the complete coding framework had been created to ensure that all themes were captured appropriately. One member of the research team was the primary coder, but the codes and associated themes were reviewed by all members of the research team to ensure agreement on the themes and findings of the research. Any disagreement between coders was discussed in person, ensuring an opportunity to thoroughly discuss where the original theme was derived from and potentially incorporate additional considerations provided by other members of the research team. All quotations have been anonymized to protect participants; identifying information has been removed and quotes have been attributed using a number system, where any individual with the number format #.# is one of multiple individuals interviewed from a single organization.

Due to the sensitive nature of the questions asked during the interviews, participants were assured that raw data would remain anonymous and confidential and would not be shared.

Our final participant group consisted of 19 staff members representing 13 ENGOs. Our participant group represented a diverse group of ENGOs, which consisted of five national

ENGOs (all of which had state-based offices or chapters), two regional ENGOs, and six state-based ENGOs (two of which were independently registered organizations which were considered affiliates of a national organization). We did not interview any organizations which were based in specific communities, counties, or cities, but did interview ENGOs which were classified as state-wide land trusts or ENGOs which were focused on specific environmental issues such as water protection and conservation or land use and protection. The mission statement of nine ENGOs refers to or directly states protections of lands and waters, either within the state of interest or more broadly across the U.S. The remaining four ENGOs are focused on conservation of specific groups of species or specific landscapes, and their mission statements related to that area of interest. Eight of these ENGOs mention renewable energy deployment or phasing out fossil fuels as a pillar or goal of their organization, and the remaining five do not mention renewable energy in their mission or goals at all. All ENGOs receive at least part of their funding from donations or grants, and ten also have membership opportunities which support organizational activities. For the remaining three, two organizations were primarily land trusts, and one organization was focused on policy action and analysis, which lead to funding sources which may be unique from the other ten. We talked to staff members in a multitude of different roles, from associates working on specific projects or policies to senior staff members, vice presidents, and executive staff members.

The adequacy of this sample size was assessed using an approach called "thematic saturation", which provides a statistical approach to understanding how likely themes are to emerge in at least one of the interviews conducted in a qualitative study and assists in supporting the validity of the sample size. This analysis is represented by the equation $P = 1 - (1 - R)^n$, where P represents the probability of a theme emerging, R is the expected prevalence of a theme in an expert population, and n is the total number of interviews conducted [40,41]. The results of this probabilistic model are shown in Table 1.

Table 1. Probabilistic model for thematic saturation for n = 19 interview participants.

Theme Prevalence (R)	Equation	Probability (P)
10%	$P = 1 - (1 - 0.1)^{19}$	86.5%
20%	$P = 1 - (1 - 0.2)^{19}$	98.5%
30%	$P = 1 - (1 - 0.3)^{19}$	99.9%
40%	$P = 1 - (1 - 0.4)^{19}$	100.0%

This statistical analysis shows that even a 10% theme prevalence (10%) has an 86.5% probability of being mentioned at least once and jumps to 99.9% for a more moderately prevalent theme (30%). This provides a level of confidence that important themes and beliefs from the relevant population are present in the sample of this research [40].

The final participant group consisted of 15 men and four women. A majority of participants were white, and the average age of respondents was 49. Fourteen participants had some sort of graduate degree: a mixture of Master of Science, Master in Business Administration, professional Master's programs, Doctoral programs, and Juris Doctorates. There was a wide breadth of degree programs represented, including Environmental Science/Management, Public Health, Political Science, and Business Administration. Eleven participants had worked at their current organization for five years or more. Of those who had less experience at their current organization, five of them had not worked with renewable energy prior to their current role.

Before providing the analysis and summary of results, it is important to acknowledge and reflect on one's positionality when conducting and publishing research. Reflecting

on positionality leads a researcher to identify their views, values, and beliefs about their research, the methodology used, and the outputs of that research. As stated by Holmes et al. [42], "reflexivity is the concept that researchers should acknowledge and disclose their selves in their research, seeking to understand their part in it or influence on it". The primary researcher has experience working with renewable energy developers, third-party consultants, and ENGOs of multiple scales and has experience working on planning and development of renewable energy projects in the region of interest as a third-party subject matter expert. We used our existing networks for recruitment of participants and relied on participants to recruit additional individuals who may be willing to contribute to this research but acknowledge that we have not captured all perspectives within this space.

4. Findings and Analysis

We break our findings into four main sets of themes. First, we look at what role participants identified their organizations as playing within the planning and permitting of renewable energy projects and how their organization approaches engagement in the renewable energy industry. Second, we look at the perspective of participants as to the current process of environmental planning for renewable energy projects and the regulatory frameworks that guide that process. Third, we dig into reoccurring themes around the role of ENGOs in environmental governance and their relationship with state and federal wildlife regulators and renewable energy developers. Lastly, we look specifically at what participants had to say about the green-on-green dichotomy, i.e., climate change versus biodiversity concerns.

The results and analysis presented here represent the perspectives provided by the sample group which participated in this research. Our participant group had more men than women and majority-white participants, with an average age of 49. This group likely represents a specific set of perspectives, and we recognize that there are perspectives within the environmental and land use planning space that our demographics did not capture. In addition, our participants were asked questions specifically related to their experience in the Great Plains region. Given the diverse regulatory and development environments of other regions within the United States and abroad, lessons learned for this region may not be directly applicable to other regions. In addition, we acknowledge that our sample of ENGOs potentially represents the perspectives of those organizations which are more actively engaged in the renewable energy sector and have formulated a clear strategy in regard to development or at least begun to consider it. None of the organizations interviewed for this research have a clear anti-renewable-energy position, either, which likely influences how they discuss development and their relationship with the sector. Despite these limitations, the findings presented below represent a series of valuable perspectives related to renewable energy deployment and environmental considerations.

4.1. Role in Development and Organizational Approaches

We first asked participants to discuss how their organization approaches engagement with the renewable energy industry. For two of the larger, national ENGOs, individual staff members agreed that there was a difference in approach between the national organization and its state offices or chapters. These staff members felt that the national office was more focused on general deployment of renewable energy while state chapters were trying to balance deployment with more local environmental concerns. It is important to note that these staff members did not frame this negatively; they felt as if they had the flexibility to be able to take national goals and craft them into tasks that aligned well with what they were doing in their state. For one national organization, a state office staff member felt that the mission of their state office aligned exactly with the national organization, as

the organization had recently gone through the creation of a new strategic plan with an inclusive and collaborative process. Five participants said that their organization focused more so on local environmental concerns and work, and one of these organizations noted that their organization does not currently have a particular stance or opinion on renewable energy at this point in time. One participant said that their organization was more focused on broader climate mitigation, including renewable energy, versus taking a more localized focus, and one participant felt that their organization balanced climate mitigation efforts with local environmental work. Overall, we found that the more national organizations were heavily engaged with industry while more local organizations were still trying to determine if they wanted to engage in the industry and how best to engage.

We also asked participants to identify how their organization currently works in the renewable energy sector or how they work with renewable energy developers or state and federal regulators. The most common item mentioned was creating tools or recommendations to help guide the siting of renewable energy projects, mentioned by nine staff members. Seven participants identified that their organization accepted money from developers for conservation projects as mitigation for development or that they connected developers to other organizations where they could contribute mitigation money. Six participants identified advising or resource sharing as a main goal of their organization; this is considered separate from tools or recommendations as these are not formal documents created but may be, for example, conversations with developers about specific projects. Five participants discussed the various ways that they shared community concerns, engaged with communities, or overall worked to amplify public visibility surrounding renewable energy deployment. An important nuance when thinking about ENGOs and communities is that the reputation of some ENGOs in communities may not always be positive. As one participant (#1.1) put it, "There's people that may have heard something about ENGO out in California that doesn't align with their values here. And so the ENGO is a pretty strong political organization and those stances might have negative implications for a project in a different area." The community connection role may not be a good fit for every ENGO.

Six participants discussed the ways that they, or other staff members within their organization, helped to bring stakeholders together, either at higher levels for strategic planning or at the local level in making connections to community members. For example, one participant (#10) noted of the benefit of stakeholder engagement, "We can help find that balance and work with several partners. I work with people all the way from the climate lobby to the Stockman's Association. . . So all across the spectrum, I'm able to work with people." In the realm of policy, six participants noted that their organization had lobbyists or engaged actively with legislators on developing policy related to renewable energy development, and two participants had testified in relation to renewable energy projects at a local level. Only five participants identified that their organization actively worked with other ENGOs, which could represent a potential gap in communication amongst groups in this sector. Overall, the roles ENGOs currently play in renewable energy development are diverse and vary based on organizational mission and capacity. Of note, the idea of ENGOs being watch dogs or pushing compliance behavior was not really discussed by any participants, emphasizing that the roles ENGOs can play go beyond this traditional framing of their role and relationship.

4.2. Perspective on Development

Throughout the interviews, participants had an opportunity to share their more general thoughts on the overall development of renewable energy projects as well as more specifically about the regulatory framework that currently exists to guide project development. Four staff members recognized that renewable energy developers were

often balancing multiple priorities beyond just environmental concerns. One participant (#2.2) said about their experience working with developers, "Most of these renewable energy developers. . . they don't get into the business trying to cut down trees to put solar panels up. . . But they have other demands and priorities they have to work through. So yeah, it can be difficult sometimes if you're not coming in at the same level of information sharing or if your goals aren't 100% aligned." Four staff members also specifically discussed ideas around finding ways to incentivize smart and responsible siting of renewable energy projects. For example, some participants brought up the idea of incentivizing power purchasers or utility companies to incorporate higher siting standards into their request for proposals for projects or leveraging subsidies for renewables to implement standards. "It's more of a carrot rather than a stick, that if you want this carrot, you need to go here or don't go there" (#2.4). Along those lines, while not a prominent idea, two participants discussed the idea that developers could set a good example for other developers. One participant (#2.4) discussed the importance of peer pressure: "Peer pressure will be huge. . . That peer-to-peer pressure could really effectively change how folks do business." Participants clearly thought about ways to push developers to include more environmental siting considerations in lieu of formal regulations requiring it.

When asked about the current regulatory framework, nine participants discussed the voluntary nature of the majority of current guidelines and how they are not enforceable to a large extent and not being followed. One participant (#9) discussed how their engagement with developers and associated voluntary conservation contributions have declined over time: "In my view, I'd say it's degenerated into is it regulated or not? So we'll address eagles and bats and that's about it." Beyond the current regulatory environment, five staff members discussed how important long-term or proactive planning will be for the industry moving forward, as the space for development becomes more limited. As one participant (#13) put it, "I would like to see a more solutions-based conversation as opposed to all the reasons why we can't do it."

One participant (#1.3) gave an example of when potential siting guidelines and regulations were proposed years ago and rejected by developers: "And [developers] also cited the fact that each county could offer their own guidelines. At this point, I'm thinking that, of course, hindsight being what is is. . ." Increasing state and local permitting frameworks or guidelines for development was only mentioned by three participants but is an important point to consider moving forward. One participant (#6) shared an interesting perspective as to why existing state frameworks may not be readily adopted in other states: "If [state] were to borrow from [state], that wouldn't matter right? But because these issues are politicized, they're going to say, well I don't want to follow such a liberal state." Participants talked a lot about frameworks and ways forward, emphasizing the potential ENGOs could have in the environmental planning of future projects or the creation of broader frameworks to help guide (and often expedite) development.

There was robust discussion about the current regulations and often the lack of enforceable regulations to guide developer behavior. Three participants discussed the idea of beyond compliance or "above and beyond" behavior and obtaining a social license to operate. One participant (#4) gave an example of being able to participate in a site visit with a developer: "So I think that was the first time that we saw a company went beyond having a phone or Zoom conversation with us and sharing of data and actually invited us to a site to take a look." There was a clear recognition by some participants that this voluntary behavior was becoming more prominent but perhaps not fast enough to combat growing opposition. As one participant (#2.2) put it, "The industry is actively losing its social license to operate in the communities that they need to be operating in. You know,

these projects are being cancelled at a higher rate." ENGOs can play an integral role in encouraging beyond-compliance behavior and translating that into community support.

4.3. Relationship of ENGOs with Developers and Regulators

Participants were asked to discuss their current relationship with renewable energy developers. Six participants, representing a mix of individual organizations as well as state offices of national organizations, said that they currently have no relationship with developers; i.e., they do not engage with them. The reasons were a mix of the organization not having the capacity to engage more actively in the industry, developers having never reached out to them, or their organization not seeing a particular need to do so. Seven participants identified that they currently advise developers in some instances or that they could but do not currently. Four participants discussed their relationship with developers and either the ENGO image or the developer image. One participant (#7), when discussing interest in engaging more with developers, said, "One of our concerns is we don't want to greenwash things. So it has to fit with our mission and values." It is important to note that one of the challenges in trying to engage with developers is that due to 501(c)(3) status, these ENGOs cannot provide benefits to just one private entity, as stated by four participants.

Returning to the idea of firms balancing multiple priorities, as discussed earlier, five participants noted that they could see, during their interactions with developers, that their organizations and developers saw development differently. "I understand that companies probably have vast matrices of everything they're trying to dial in for cost and benefit, but for me, some of the larger questions have always been what is the net gain of siting a facility where it's been selected" (#13). This difference in priorities represented a challenge when trying to reach a consensus or have a productive conversation. A minority of participants (three individuals) shared thoughts about their engagement with developers, saying that overall, they were not positive experiences. We asked one participant (#10) if their organization found it beneficial to engage with renewable energy companies and if engagement was productive, and their immediate response was no. When asked to elaborate, they said the following:

> "In my view, they don't utilize the expertise that we have on the ground. On a recent call, I was on with the wind company, their main focus is their bottom line and they don't want to do anything that's going to take away profits, and they actually did say that. . . So I'm a bit jaded. I'm working with these companies and not to say that they're all bad players and not to say we haven't had success, we have but more and more, it just seems to be lip service."

Conversely, one participant (#4) shared the following about their experience with renewable energy developers: "We found that renewable energy developers, moreso than oil and gas companies that we had done similar work with. . . they wanted to do the right thing, and so they are very happy to talk with us and very happy to share data with us."

Participants shared an overall range of experiences in engaging with renewable energy developers. Participants' experiences provided valuable insight into what may be preventing ENGOs from engaging further with developers in many instances or how narrow the lens of current engagement is. It is important to acknowledge that not every engagement is positive, and this emphasizes the need to think critically about what engagement between ENGOs and the renewable energy industry looks like moving forward.

Participants were also asked to discuss their current relationship with state and federal wildlife agencies. Six participants said that their organization currently has limited to no engagement with these agencies. Five participants said that their organization's role was largely advisory or, conversely, that they were receiving advice, data, or guidance from regulators. For example, one participant (#10) noted that their state agency has done a large

amount of research related to avoidance areas for renewable energy as well as research on potential impacts, and that their organization utilizes this data or particular experts in their organization were consulted when the data was being compiled. Three participants identified that their only engagement was through working groups, where there were multiple stakeholders at the table. One example mentioned was the Association of Fish and Wildlife Agency's Energy and Wildlife Policy Committee, Solar Wildlife Working Group, and Wind Wildlife Working Group. Overall, from the perspective of ENGOs in this region, engagement with agencies is fairly limited at this point in time.

4.4. Climate Change Versus Environmental Impacts—The Green-on-Green Conflict

While participants were asked whether their organization was more focused on climate change mitigation and renewable energy deployment or local environmental concerns, they were not explicitly asked to compare climate change concerns versus local environmental impacts at any point during the interview. Despite this, six participants spent time discussing the dichotomy between climate change and local environmental impacts in their work. This experience is important to highlight because as renewable energy development moves forward, this particular narrative of renewable energy deployment for climate change mitigation at the expense of local environmental impacts has the potential to be damaging to future collaboration and relationships.

For example, one participant (#2.2) said the following about this dichotomy:

> "Sometimes it feels very gaslighty when you come in and say no, we know these projects are having impacts and they say well, no they're not. And guess what? If you complain, you are stopping the world from solving climate. . . If that's the conversation we're going to have, lets just not have a conversation."

When talking about renewable energy as a part of the narrative on sustainability, another participant (#4) said the following:

> "They're working to decarbonize the grid but at the same time, are they really going to adopt the sustainability principles of the triple-bottom line or are they really going to seek to maximize profits?. . . Are they going to see it through and really recognize that they need to have these positive environmental and social impacts as well."

The green-on-green conflict represents a clear communication barrier for some individuals and could potentially represent a sticking point in building trust between ENGOs and developers. It is important to recognize that the narrative of renewable energy development over environmental concerns is alienating for some individuals who are not opposed to renewable energy development but have concerns about how it is sited.

5. Discussion

Our research examined the role that ENGOs currently play in the renewable energy sector, the roles they could play, and how they navigate the complex challenge of balancing climate change goals with local environmental protection.

As previously noted in Section 4 in brief, it is important to recognize the limitations of this research. Our participant group had more men than women and majority-white participants, with an average age of 49. This group likely represents a specific set of perspectives, and we recognize that there are diverse perspectives within the environmental and land use planning space that our demographics did not capture. Our sample of ENGO staff members represents a diverse range of ENGO goals, scales of interest (national, regional, local), and experiences of staff members, and overall can reflect some of the general trends and sentiments for development specifically within the Great Plains region. Given

the diverse regulatory and development environments of other regions within the United States and abroad, lessons learned for this region may not be directly applicable to other regions. In addition, we acknowledge that our sample of ENGOs potentially represents the perspectives of those organizations which are more actively engaged in the renewable energy sector and have formulated a clear strategy in regard to development or at least begun to consider it. None of the organizations interviewed for this research have a clear anti-renewable-energy position, either, which influences how they discuss development and their relationship with the sector. Organizations which may not perceive renewable energy as a main prerogative or impact of their work or which starkly oppose development are not represented in this group and may provide a different set of perspectives on development in this region. Despite these limitations, we argue that this research contributes a series of valuable takeaways for consideration as renewable energy deployment continues.

Table 2 below summarizes the key findings from this research.

Table 2. Summary of key findings.

Key Idea	Main Themes
Role in development and organizational approaches	• ENGOs are actively engaged in the renewable energy industry or would like to become engaged. • The main role of ENGOs currently is providing tools or recommendations for siting. • ENGOs can also contribute by serving as a bridge for diverse stakeholders. • ENGOs have limited engagement with other ENGOs in this space.
Perspective on development	• Frameworks in place for renewable energy currently are largely voluntary. • There is skepticism about the sincerity of developers.
Relationship of ENGOs with developers and regulators	• ENGOs who do engage with renewable energy developers do not always feel it is a positive engagement. • ENGOs who do not engage with renewable energy developers do not because they lack capacity or connections. • ENGOs have limited to no engagement with regulators currently.
Climate change versus environmental impacts	• There is a dichotomy between environmental impacts and climate change that is often present. • This dichotomy can be divisive.

First, there are ENGOs actively engaged in renewable energy development and there is an overall interest in becoming more engaged with renewable energy developers and other relevant stakeholders. Despite the broad range of organizational focuses represented in this participant group, there was not a single participant who said explicitly that they did not want to engage with renewable energy development or that they did not see relevance in doing so in relation to their organization's work. Many ENGOs are still trying to determine what exactly the most useful role for their organization would be within the sector. There are also concerns of capacity to engage, a concern that has been echoed by other NGOs in discussions about the business–NGO interface [15], which was shared in a number of different contexts in this research, related to both current involvement and also future involvement. Of note, the idea of ENGOs serving as watch dogs or pushing compliance was not something that participants identified as a role of their organization.

While the predominant current role identified is providing tools or recommendations for siting, many participants emphasized their organization's capacity to bring together diverse stakeholders and build bridges. The current roles played by ENGOs in this space generally match those identified in the literature, with a particular emphasis on the benefit to developers of gaining new knowledge or learning new skills from ENGOs [12]. One avenue that we see becoming a particularly useful asset is in local community engagement; some ENGOs are more intimately connected with communities in their geography of interest and could help address local concerns and opposition—fulfilling more fully the role of building bridges.

Second, we found that not many ENGOs were collaborating with other ENGOs or with regulators; the relationship between organizations or organizations and regulatory entities appeared to be minimal. We see this as a gap currently in the sector, as a lack of coordination by organizations can lead to redundancy or even conflicts in the information being provided between groups. Consensus among ENGOs in a region could increase buy-in in terms of engagement with other stakeholders in the environmental planning of renewable energy projects. In addition, improving communication to ensure that ENGO recommendations and tools match regulator expectations and regulatory requirements would also be beneficial to increasing consensus within the sector. As highlighted by Eitan and Bukchin-Peles [19], a positive relationship between regulators and ENGOs can also provide an opportunity for ENGOs to build connections and lines of communication between regulators and renewable energy developers, what they refer to as "'honest brokers' who [do] not hold formal authority but [wield] interpretive influence, procedural memory, and credibility" (p. 7).

Third, participants discussed the voluntary nature of current frameworks guiding development and questioned the sincerity of some developers moving through the process; there is some recognition of an existing "regulatory vacuum" that some ENGOs are trying to fill through engagement with developers [4]. While this regulatory vacuum has historically led to pursuit of a watch dog role for ENGOs, as highlighted in Section 2.1.1, participants did not indicate that this was a role they were seeking to play. As previously noted, they instead pursue avenues of knowledge sharing and collaboration, emphasizing the shift discussed in other research on the growing collaborative business–NGO relationship structure [12]. We found that for those organizations which currently engage, they had mixed sentiments about the efficacy of engagement, and for those that did not, it was a mixture of capacity limitations but also lacking the connections or opportunities to participate, which reflects what others have found regarding ENGO engagement with businesses [15]. All participants identified a suite of ways in which they felt their organization could contribute to the sector; this research emphasizes that there is a current gap between what ENGOs could contribute and what they currently have the opportunity to contribute.

Lastly, the dichotomy between local environmental impacts and climate change felt divisive for some participants. These organizations clearly recognize that renewable energy development is a necessary tool in the tool belt for combating climate change. It was clear, however, that they felt that this dichotomy discredited other concerns related to the missions or goals of their organization. This dichotomy connects to an attitude of developers identified in the literature referred to as "TINA" or "There Is No Alternative", which encompasses the attitude that some developers have towards social and environmental concerns raised about projects [43]. For some participants, this TINA attitude was pervasive and clearly contributed to the lack of success in relationship building or other challenges within the relationship between ENGOs and developers more broadly, as encompassed in the other key findings of this research. This dichotomy could represent a serious challenge in trust building between ENGOs and renewable energy developers and could

inhibit collaboration in some spaces. It is important to recognize that renewable energy development and siting challenges are not black and white, and that there is room for innovative solutions which can balance deployment with environmental concerns.

6. Conclusions

Overall, this research contributes to the conversation about the role that ENGOs can play in land use planning and business and government relationships, specifically within the renewable energy sector. This research has provided a number of different recommendations which could be utilized to build stronger relationships between ENGOs and developers and encourage more consistent knowledge sharing and collaboration. One, there is a strong potential for ENGOs to serve as bridgebuilders in local community engagement. Some ENGOs are well connected in local communities, particularly those ENGOs which serve as land trusts or focus on specific environmental issues which involve local projects and work, and could provide insight into community priorities and concerns. Renewable energy developers and other third parties working to assist with development should consider building meaningful partnerships with local ENGOs as part of their community engagement strategies. Two, ENGOs need to build better relationships amongst other ENGOs, as this can help reduce redundancy in resources provided to the sector and ensure consistency in messaging when goals align. Three, building engagement and relationships with regulatory authorities beyond receiving grants or fundings could provide avenues for ENGOs to facilitate more collaborative relationships with regulators and also ensure that ENGOs are not providing information which contradicts or conflicts with regulatory guidelines and requirements. Four, this research has shown that ENGOs can provide support for renewable energy development in multiple ways, but trust building and communication can represent a serious roadblock. Renewable energy and its potential impacts are not black and white, and coming together in working groups or similar collaborative efforts where multiple perspectives are being shared can help ensure that renewable energy deployment is not valued over environmental impacts and other land uses, or vice versa. We recognize the reality of working group fatigue, which again emphasizes the need for ENGOs to be on the same page with one another to ensure that engagement is happening productively and strategically with the relevant stakeholders.

As renewable energy deployment continues to see increasing roadblocks in community opposition, land use conflicts, and the rise in local permitting requirements, we believe that ENGOs will represent a valuable ally in overcoming these challenges [44]. ENGOs can help align private-sector goals and values with those of the general public [45]. Our research provides insight into the role ENGOs feel they currently play, the roles they could play, and what their relationship looks like with other stakeholders in the industry. The current boundaries of the stakeholders involved in the planning of renewable energy projects—largely limited to the developers as an insular group with input from state and federal agencies—can limit and constrain the innovations possible in the space [46]. Expanding participation to include ENGOs can lead to new solutions to the challenges renewable energy deployment faces currently. Our research also emphasizes the emotional side of collaboration and engagement in the space and the importance of open and honest conversations about differing priorities and the challenges that may arise from them. Finding common ground will become increasingly important in pursuing an equitable and successful clean energy transition.

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Abbreviations

The following abbreviations are used in this manuscript:

ENGO	Environmental nongovernmental organization
NGO	Nongovernmental organization

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