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Energy justice and the co-opting of indigenous narratives in U.S. offshore wind development

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ABSTRACT

The possibility of substantial offshore wind energy development in the United States (U.S.) is rapidly advancing. Several offshore wind projects have been proposed proximate to federally-recognized tribal territory. Historically marginalized, indigenous communities have for centuries experienced injustices during the expansion of the U.S. energy system. Few studies have systematically examined the responses of indigenous communities to offshore wind, and little is known about the ways that indigenous concerns are leveraged by non-members to advance a position advocating for or against offshore development. In this study, we examine the discourses that surround indigenous communities through legally mandated decision-making processes for two proposed offshore wind projects in the northeast U.S. We show that narratives surrounding indigenous stakeholders in the offshore wind scoping process can be thematically identified as: 1. *religious, cultural, and spiritual value*, 2. *land and identity*, and 3. *process and procedures*. However, the concerns and perspectives of indigenous communities are mostly brought forth by non-group members, and were found to be leveraged or diminished by non-indigenous individuals pushing anti- or pro-offshore wind sentiment. This reveals the finding that indigenous concerns are being co-opted or sidelined through formal and legal decision-making processes in the U.S. The results indicate that the formal consultation process failed to meet standards of energy justice by inadvertently giving outsize voice to lesser impacted communities. Therefore, our study cautions that energy justice is not achieved solely through “inclusive” processes and decision-makers should be diligent in considering the multi-faceted aspects of justice.

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Introduction

As global average temperatures increase, sea-levels rise and extreme weather events grow in number each year, the Earth’s climate rapidly approaches a cascade of potentially catastrophic tipping points. Major climate mitigation efforts are crucial to prevent crossing the threshold into irreparable changes to the Earth’s climate and ecological systems. The transition away from fossil fuel energy sources and towards renewables is a significant climate mitigation strategy. While essential to climate mitigation, renewable energy also has the potential to promote social justice by combating inequitable decision-making power structures produced over centuries by the fossil fuel era, if the energy transition progresses according to the standards for energy justice [1].

In the United States (U.S.), offshore wind energy is gaining traction as a promising form of renewable energy due to its substantial availability near major demand centers and technical capacity to exceed U.S. electricity consumption [2]. Offshore wind has experi-

enced rapid growth worldwide and is increasingly included in U.S. federal and state policies as a significant component to energy transitions. Market interest has grown considerably as state-level offshore wind targets have incentivized the leasing of large tracts of ocean space to create economies of scale [3]. Although the potential for low-carbon electricity generation is tremendous, the offshore wind sector in the U.S. has significantly lagged behind other nations. Many reasons exist for the lagging growth of this sector, including social factors such as local community opposition to demonstration-scale and commercial scale projects [4,5,6] and anticipated spatial conflicts with stakeholders such as the fishing community [7]. Among more general public attitudes towards wind energy, which are largely supportive, acceptance of local wind projects is more nuanced [8]. Bates & Firestone [9] document that the “public” is not monolithic and that stakeholder groups often have very different perceptions and attitudes towards offshore wind development. For example, people residing nearby infrastructure staging areas, people who live near proposed electricity cable connection points, or indigenous communities that may find their sovereign lands affected may have unique and nuanced attitudes towards a proposed offshore wind development.

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Indigenous communities and renewable energy

Indigenous communities have long been involved in renewable energy transitions. Land both within the current bounds of tribal territory and land proximate to tribal territory are frequently subject to energy development interest. Worldwide, indigenous land holds abundant renewable energy potential, particularly solar and wind power [10]. Despite containing nearly 8% of U.S. wind energy potential, however, indigenous land currently supports a paucity of utility-scale wind energy projects [11]. Wind energy projects on tribal land are often thwarted by complex legal frameworks and issues surrounding stakeholder consultation and involvement, tribal autonomy, and self-determination [12,13]. Shifting towards renewable wind energy has many potential benefits, if done according to standards of energy justice. These benefits include the potential to increase electricity access, stimulate economic development and diversification, support job growth, and promote tribal sovereignty and energy independence [14]; and further, incorporate indigenous leadership in climate action and bring indigenous communities closer to achieving environmental justice [15]. However, energy dependence varies among indigenous tribes and across geographical locations, which affects the viability and necessity of renewable energy projects in different regions [16]. Further, particularly in remote tribal communities, fossil fuels provide reliable energy and employment, especially where heat insecurity is prominent [17], and it should not be assumed that tribal communities are unwaveringly supportive of renewables.

The challenges that tribes face regarding wind energy development are not novel but are instead situated within a long history of marginalization in the United States. Current environmental injustices, including the diminishing of land and water sovereignty as well as exclusion from decision-making with regard to fossil fuel development, act as a continuation of the violence wrought upon indigenous communities through settler colonialism centuries prior. The shift to renewable energy poses the possibility to disrupt current fossil fuel systems and the environmental injustices that come along with it. If done in a way that meaningfully involves indigenous communities, wind energy development can promote the reclaiming of resources and land that have been forcefully and abusively extracted by fossil fuel programs, allowing for energy production methods that are better aligned with indigenous values of land and resource use [18].

Energy justice

Renewable energy poses potential environmental and social benefits but can also create a power imbalance between energy developers with significant investment and stakeholders who lack decision-making authority. Promoting renewable energy for climate mitigation can be at odds with simultaneous goals of a just and equitable society. The U.S. energy system is steeped in inequities and injustices. People of color, low-income communities, and indigenous populations are especially vulnerable to the way the U.S. generates, transports, and invests in energy, especially legacy polluting fossil fuels, which are often concentrated near marginalized communities [19]. In a transition to renewable energy, there are both winners and losers – winners that gain from employment and emission/pollution reduction and losers that bear the burdens of the transition [20]. While low-carbon alternatives to fossil fuels are often framed as a “greater good” with potential to meet climate mitigation targets, the development path for offshore wind in the U.S. exists within a regulatory system whereby energy developers work with government decision-makers to obtain a series of permits and approvals for exclusive rights to develop the seabed for energy generation and sales for several decades, as specified in U.S. federal regulation (30 CFR §585). Therefore, while full of pro-

mise and an important component of climate change mitigation in the U.S., the implementation of offshore wind energy must address the critical questions of where development should occur, what is at stake, and who will sacrifice for or benefit from the energy transition.

The concept of energy justice offers an analytical framework to evaluate the implications of decision-making within the context of the energy transition. Energy justice is a relatively recent concept that bears philosophical similarities to environmental justice, which encompasses the distribution of costs and benefits, capabilities, recognition, and participation in environmental processes [21]. Specifically, energy justice necessitates that all individuals have access to safe, affordable, and sustainable energy, offering a framework that can be applied to decision-making processes. Energy justice is frequently evaluated through three core tenets: distributive justice, procedural justice, and recognition justice [22,23], with this framework dominating current analyses of policies, programs, and academic research [24].

Under the “three tenets” model, *distributive justice* considers who receives the benefits and who bears the costs of development in the energy transition. The expansion of wind energy in specific areas across the country, while there is a continued presence of fossil fuels in others, raises concern around the benefits and burdens of each energy source, such as impacts on environment and human health as well as costs and expenditures of the development and infrastructure [25]. These costs may be disproportionately spread among communities given geographic proximity, prior marginalization, or lack of access to benefits such as workforce development.

Further, *procedural justice* examines how policies and decisions are being implemented and the ways in which different stakeholders are included in decision-making processes in energy development. This requires inclusive and meaningful access for all stakeholder communities to voice their perspectives during every stage of the process [26].

Recognition justice seeks to acknowledge all individuals or communities that are impacted by changes in the energy system, and values the understanding of social, political, and cultural impacts of the energy policies or decisions to all people. Understanding that the ways in which energy systems and transitions may disproportionately affect certain marginalized communities is a key component to recognition justice. Recognition and procedural justice often go hand in hand as the energy transition considers both the value of who is being represented in decision-making processes as well as the measures that allow or inhibit this representation [27].

Research has theorized alternate energy justice frameworks that continue to build upon and expand on environmental justice concepts relating to energy systems. One notable alternative to the three tenets model is based on principles. Sovacool & Dworkin [28] identify eight principles that provide a framework of achieving energy justice, refined to ten principles by Sovacool et al. [29]. The principles are not new; many can be found in the roots of international environmental treaties [30], such as good governance, due process, and inter- & intragenerational equity, but also include more fundamental principles such as availability and affordability of energy resources for all people.

Further advancing the energy justice paradigm, a series of research concepts have been articulated as the frontier of energy justice research. One such “frontier” relates to the tradeoffs between energy justice principles, in which meeting one goal of energy justice can erode another, or generate other injustices [29]. Notably, a strong emphasis on procedural justice, whereby governmental processes and decision-making promote inclusivity and access to all voices, can inadvertently give outsize voice to those who have greater access to such processes which may directly conflict with distributive or recognition justice [31]. Examples abound where energy justice prin-

ciples conflict with one another, such as where communities lose income or access to wealth or are forcibly displaced to provide affordable and available energy to the masses as a societal good [32]. In studying public discourses framed within the “three tenets” energy justice model, Thomas et al. [33] found that citizens feared that promoting justice principles by reallocating costs and benefits could create new vulnerabilities or perpetuating narrow forms of participation in the energy system.

A second frontier in energy justice research is the exposure of unjust narratives or discourses [29]. This research frontier demonstrates the importance of exposing discourses that promote existing power structures and hegemony, claiming justice when injustices actually occur, thereby perpetuating power and wealth imbalances [29]. Kalt [34] finds that narratives by anti-coal and pro-coal labor movements pit the tenets of energy justice against one another in which economic interests clash with climate mitigation, ultimately delaying the transition from coal and perpetuating the hegemony of fossil fuels. In that study, both pro- and anti-coal proponents used justice narratives to advance their position with the frameworks of recognition, distributive, procedural, and restorative justice [34].

Research aims

This study examines how narratives surrounding indigenous communities are reflected in the statutory public engagement process during offshore wind planning. We focus this study in the U.S., using two proposed, high-profile projects off the coast of Massachusetts. In both cases, the proposed offshore wind development was and continues to be controversial and hotly contested among a myriad of political positioning and evolving regulatory processes. Studies have examined indigenous involvement and perspectives for land-based wind, and others have examined social acceptance of offshore wind in coastal communities; yet few have examined indigenous narratives surrounding offshore wind sites proximate to indigenous land. Within the field of energy justice research, there exists a research gap of analyzing energy justice principles in practice, where past research tends to examine energy justice in theory [35]. Jenkins et al. [25] note that despite the crucial role legal systems and frameworks have in renewable energy development, few studies have addressed how legislative and regulative frameworks can support or hinder energy justice principles. Additionally, Batel [36] points to the importance of examining “what is being said, how, by whom and for whom” with regard to the energy transition. As the U.S. offshore wind industry gains momentum amid climate mitigation urgency, our research meets the urgency of understanding current successes – or failures – of applying energy justice principles to renewable energy development at all stages.

We take a critical theoretical approach to evaluate the discourses of offshore wind energy decision-making processes surrounding indigenous communities. Our research responds to two key frontiers in applied energy justice research: examining the tradeoffs among justice principles by critically examining the ways in which indigenous voices are or are not incorporated into offshore wind planning processes, and uncovering unjust narratives in “just” energy decision-making by examining whether and how indigenous concerns are co-opted or sidelined by non-indigenous people in the process of advocating for or against offshore wind. To that end, we set out to answer the following questions:

1. What are the dominant narratives ascribed to indigenous stakeholders in the planning process for offshore wind in the northeastern U.S.? For what purposes are these narratives being promoted, and do they reveal a perpetuation of hegemony and power imbalance in these processes?

2. Is there evidence of tradeoffs among energy justice principles through planning processes for offshore wind development, particularly with regards to the tenets of distributive, procedural, and recognition justice?

Energy justice, offshore wind, and indigenous communities

While indigenous tribes are statutorily involved in renewable energy decision-making on federal lands, including submerged lands, tribes are rarely centered in decision-making. Complexities surrounding tribal autonomy and land rights, such as jurisdictional restrictions, bureaucratic issues, legal requirements, and internal administrative conflicts within tribes, can complicate renewable energy development processes [37,10]. As sovereign nations, federally recognized tribes are entitled to Government-to-Government consultation for energy development where they may be affected. In practice, the process and parameters of tribal consultation are not well defined and can be inconsistent and lack effectiveness [38].

Several mechanisms are in place to protect the right to involvement and consultation of indigenous communities in the U.S. when projects are proposed on or near tribal land. One such example is Section 106 of the National Historic Preservation Act, which requires federal agencies to consider the effects of all projects and developments on historic properties and to give interested parties the opportunity to express support, opposition, and suggestions throughout the development process [39]. The Advisory Council on Historic Preservation, or ACHP, is an independent federal agency intended to promote “preservation, enhancement, and productive use” of national historic resources and is consulted on all issues related to Section 106. While legal requirements provide a framework for consultation, there is widespread recognition that consultation under these frameworks has been inadequate and has historically failed to meet standards of energy justice [40]. The successes of these legal frameworks require relationships of mutual respect and recognition across indigenous stakeholders, governments, non-governmental organizations, and developers.

To address energy justice in practice with indigenous stakeholders and renewable energy, several case studies have demonstrated the importance of incorporating indigenous voices in the planning and development of renewable energy projects, in part because of deeply rooted indigenous views on sustainable resource and land use [41,42]. Further, the context of people’s histories with the land is relevant to the ways in which people view renewable energy [43]. Tribal identities are strongly connected to the land, and therefore land rights are intertwined with human rights [44]. The exploitation of land and initial adverse economic effects of investments in renewable energy projects, as in fossil fuel energy developments, can become vehicles of injustice when government or industry do not take community perspectives into account during project planning [45]. Assessing how tribes are participating in institutional processes and where participation is co-opted by non-group members in the decision-making process for renewable energy projects could shed light on whether the standards for a just energy transition are being met.

Methods

Geographic scope

We identified two offshore wind projects which had gone through extensive federal permitting processes in the northeastern region of the United States: the Cape Wind project, proposed on Horseshoe Shoal in Nantucket Sound, and the Vineyard Wind project, proposed south of Martha’s Vineyard. While the Cape Wind project was ultimately canceled in 2017 in part due to indigenous

Table 1

Titles, associated federal agencies, associated offshore wind project, comment period, and total comments associated with the five Federal Register documents served for data analysis [47,48,49,50,51].

Document	Federal Agency	Offshore Wind Project	Comment Period	Total Comments
Notice of Availability of the Revised Minerals Management Service Documentation of Section 106 Finding of Adverse Effect (Revised Finding) for the Proposed Cape Wind Energy Project Located on the Outer Continental Shelf (OCS) in Nantucket Sound, and the Opportunity for Public Comment	Minerals Management Service, Interior	Cape Wind Energy Project	1/25/2010 – 2/12/2010	314
Environmental Assessment Prepared for Proposed Cape Wind Energy Project in Nantucket Sound	Minerals Management Service, Interior	Cape Wind Energy Project	3/8/2010 – 4/7/2010	1.7k
Draft Supplemental Environmental Impact Statement for the Cape Wind Energy Project MMAA10400	Bureau of Ocean Energy Management, Interior	Cape Wind Energy Project	3/31/2017 – 5/15/2017	416
Notice of Availability of a Draft Environmental Impact Statement for Vineyard Wind LLC's Proposed Wind Energy Facility Offshore Massachusetts	Bureau of Ocean Energy Management, Interior	Vineyard Wind LLC	12/7/2018 – 1/22/2019	135
Notice of Availability of a Supplement to the Draft Environmental Impact Statement for Vineyard Wind LLC's Proposed Wind Energy Facility Offshore Massachusetts and Public Meetings	Bureau of Ocean Energy Management, Interior	Vineyard Wind LLC	6/12/2020 – 7/27/2020	13.3k

and local opposition relating to historical sites – the Vineyard Wind project was still in the process of being reviewed at the time this research was conducted. We selected these two projects firstly, for data availability: these two projects were far enough along in the federal permitting process to contain publicly available datasets, among a paucity of relevant data for the nascent offshore wind industry in the U.S. We also chose these projects because of their proximity to the federally-recognized indigenous land of the Mashpee Wampanoag Tribe and Wampanoag Tribe of Gay Head, enabling formal Government-to-Government negotiations with tribes within existing legal frameworks for engagement and consultation.

Data collection

Our data consist of archived public comments to documents seeking public input for federal permitting actions related to the two offshore wind projects over a ten-year period, from 2010 to 2020. Between the dates of September 2020 and March 2021, we conducted a thorough search for documents relating to the two projects, Cape Wind and Vineyard Wind, through the U.S. Federal Register [46]. The Federal Register documents that are available for these two projects where public input was requested are associated with environmental permitting actions pursuant to the National Environmental Policy Act (NEPA), 42 U.S.C. § 4321 et seq. Upon reviewing available Government publications on the U. S. Federal Register regarding the Cape Wind and Vineyard Wind Project, a total of five publications were found that contained publicly available comments pursuant to the NEPA permitting process, three for the Cape Wind project and two for the Vineyard Wind project. All five were included in the study. The five corresponding documents, shown in the table below, spanned different parts of the proposal period for each project, from 2010–2017 for the Cape Wind documents and 2019–2020 for the Vineyard Wind project documents (Table 1).

We selected relevant comments through a systematic search in the Federal Register database, using predetermined search terms selected to narrow comments to only those pertaining to indigenous stakeholders, including narratives of indigenous people themselves and narratives of non-indigenous people who referenced tribal concerns. We selected the search terms “indigenous,” “native american,” “native,” “indian,” and “tribe” with the aim of excluding comments that did not pertain to indigenous stakeholders and including the largest possible number of relevant com-

ments. The terms were selected upon cursory review of the public comments, review of relevant literature of energy justice and of indigenous studies, and reading of popular media such as news articles and social media referring to the selected cases and indigenous communities. The research team consulted a data mining expert and came to consensus for the search terms to be used to extract relevant comments from the source data. Relevant comments may have been excluded if they did not include the designated terms. Acknowledging that none of the authors identify as members of an indigenous group, there exists pre-conceived judgement in identifying the search terms used to select our data sample as a result of both our Western-centered training and identity as non-indigenous peoples. Each of the search terms were searched individually, therefore any comment that included at least one of the search terms was included. The selected search terms reduced the number of comments from n=2450 to n=286 for the Cape Wind documents; only 3% of which were self-identified as posted by members of a tribal nation (n=10). The number of comments for the Vineyard Wind project yielded just 13 comments that were relevant to the study, 31% were from self-identified members of a tribal nation (n=4) (Table 2). A comment was labeled as “indigenous” only if the authors specifically stated they were a member of a tribal nation; otherwise, it was labeled ‘non-indigenous;’ therefore our labeling of indigenous perspectives may be underrepresented.

Data analysis

An inductive approach was used to identify emergent themes surrounding indigenous perspectives on wind energy. Data were analyzed using thematic analysis using thematic patterning across the data [52], following a sequential process of reviewing data, coding, identifying, reviewing and defining themes [54] (Fig. 1):

Table 2

Number and percentage of sources from indigenous versus non-indigenous authors by project (n=299), that included one or more of our search terms in the Federal Register database.

	Vineyard Wind (2019–2020)	Cape Wind (2010–2017)
Indigenous	31% (n=4)	3% (n=10)
Not Indigenous	69% (n=9)	97% (n=276)
Total	13	286

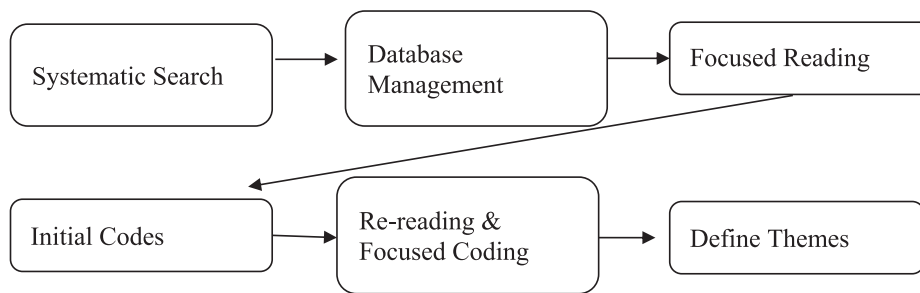


Fig. 1. A diagram of the data collection and data analysis procedures, from downloading texts to producing final themes.

- 1) The researchers uploaded each of the 299 documents containing predetermined search terms into the qualitative analysis software program Dedoose, V.8.3.4 [55]. The research team then conducted a thorough reading of each of the documents to familiarize with the public comments; noting segments that included references to indigenous groups, including narratives both of or ascribed to indigenous communities;
- 2) The researchers (E.B. & I.S.) then independently conducted initial coding of a subsection of the data, an open technique in which each line of text was read and open coded [56,57] identifying attitudes, concepts, and motivations found in

- each of the documents. The researchers used an inductive approach and codes were data-driven - thus were not predetermined; rather during open coding, a long list of codes were independently generated and applied throughout as relevant, and new codes were created as needed;
- 3) After initial coding, the researchers collaboratively reviewed the open codes, discussed patterns and new ideas emerging, and subsequently implemented “focused coding” of the initial codes [56], iteratively refining the codes and collapsing and re-classifying codes, ultimately generating a list of 18 codes with code definitions that capture the nuance of each code (Table 3);

Table 3

Themes and subthemes discussed in public comment across the study period (2010–2020) in support of or in opposition to offshore wind projects proposed off the Massachusetts coast, United States. Code frequencies are illustrative and were not used as the basis for theme identification.

Theme	Subtheme	Definition	Count
Religious, Cultural & Spiritual Value		Narratives included concerns about religious rights, cultural practices, and ancestral value embedded in the land where offshore wind projects were proposed to be sited.	174
	Ancestors and Heritage	Histories of indigenous ancestors on the land.	24
	Burial Ground	Mentioned “burial grounds” refer to those said to be located under water in the Nantucket sound, at the site of the projects.	17
	Cultural and Historical Significance	Overview of past and present significance the land and water holds for indigenous groups.	80
	Generational Value	These comments put forth perspectives that value past generations of ancestors that lived on the shared land, giving reason to keep the land preserved for future generations as well	2
	Sacred Ground	The importance of specific areas to local tribes, particularly concerning ancestors and historically cultivated relationships to the environment	34
	Sunrise Ceremonies	Refer to the indigenous tradition in which uphold the view of the sunrise as a part of a spiritual ritual	20
Land and Identity	Way of life and cultural behavior	Generalized views on indigenous life and culture	12
		These narratives relate to the history of the land, indigenous responsibilities to the home ecosystem or natural environment, as well as indigenous claims to the territory.	191
	Connection to land	Refer to the long-standing connection that Massachusetts indigenous peoples have with the land, as mentioned in many of the comments.	29
	Dependence on natural resources	Refer to the dependence of indigenous peoples upon the land in question for offshore wind projects.	5
	Environment and Ecosystem	Specific concerns about impacts of offshore wind technology on sea-floor ecosystems.	37
	Just Transition	Refer to environmental justice during the transition to offshore wind specifically, including socioeconomic concerns	31
	Land Sovereignty	Refer to the sovereignty of indigenous communities to govern themselves and their land.	7
	Protection of historical & archaeological sites	Identify the significance of protecting indigenous historical sites, both on land and buried under the sea.	42
	Relocation of project	Suggestions for an alternate location for the project	37
	Aesthetics/View	Disruption of the viewshed by project infrastructure.	22
Process and Procedures		Refers to specific policies or entities that mandate certain legal actions to be taken in circumstances relating to indigenous rights and land, and the right to consultation in decision-making processes.	183
	Stakeholder Involvement	Identify the need for all stakeholders, specifically indigenous ones, to be included in development process	14
	Tribal Consultations	Identify the need for consulting affected indigenous peoples or refer to past consultations in regard to development process	47
	Tribal Rights & Obligations	These comments point to the requirement that proximate indigenous peoples should have inherent voice in the legal processes of development, and to past treaties that upheld tribal self-determination.	32

- 4) Upon completing “focused coding,” the research team collaboratively created clusters of codes and identified emergent themes through a process of clustering, and re-clustering, and visually mapping codes into thematic areas [52]. Ultimately, three themes were identified that describe the narratives and codes were further collapsed and refined into subthemes upon achieving researcher consensus [53]. The themes were reviewed for accuracy, comprehensiveness, and exclusivity (E.B., I.S., A.B);
- 5) The researchers defined and described each theme and analyzed the content, meaning, and relevance to the literature. The three emergent themes were identified as “Religious, Cultural & Spiritual Value,” “Land and Identity,” and “Process and Procedures.” See Table 3 for theme and subtheme definitions.

Results

Analysis of the selected documents (n = 299) reveal several thematic areas in the narratives that surround indigenous communities. In total, three emergent themes were identified including: (1) *Religious, Cultural & Spiritual Value*, (2) *Land and Identity*, and (3) *Process and Procedures*, briefly defined in Table 3. Individual comments often included more than one sub-theme.

Thematic narratives ascribed to indigenous communities

We reveal three major themes that characterize the perceptions surrounding offshore wind and indigenous communities (Table 3). These themes encompass the full range of comments submitted by the public during the study period.

Religious, cultural & spiritual value

The theme “religious, cultural & spiritual value” consists of seven unique sub-themes across 174 instances across 93 records. All but one of these documents refer to the Cape Wind project, where part of the project was determined to be located on a former (now submerged) habitation site and possible ancient burial ground [58]. The coded documents revealed sub-themes of cultural and historical significance, sacred grounds, ancestors and heritage, sunrise ceremonies, burial grounds, way of life and cultural behavior, and generational value. Of 93 unique documents associated with this theme, seven records were from self-identified indigenous peoples with one additional record from a lawyer representing self-identified indigenous peoples.

Altogether, the comments encompass concerns relating to tribal history, spirituality, and indigenous cultural value. These concerns indicate issues of distributive justice: the proposed placement of an offshore wind farm being a site where the frontline indigenous communities bear the cultural loss of traditional ceremonies. Specific locations and traditions like tribal burial grounds and sunrise ceremonies play a large role in indigenous ways of life [57], and concerns surrounding disruption of these traditions are reflected in many of the comments. The proposed site for the Cape Wind project, for example, was located on what is said to be an ancestral burial ground, now under water as a result of sea-level rise. Additionally, a sub-theme was identified as generational value, both ancestral and for future generations. One self-identified tribal member commented on the generational and ancestral value of submerged land, including burial grounds:

“We are the closest tribe to the landshelf disturbance; it affects us that the possible destruction of ancient locations and disturbance of resting places of our ancestors will take place during our watch.”

Other narratives included concerns about religious rights, cultural practices, and ancestral value embedded in the land where offshore wind projects were proposed to be sited. Many comments cite concerns around obstruction of oceanic views as a disruption to cultural value of the land to stakeholders. The excerpts that fell under this particular theme often included phrases like “sacred” or “integral” to convey the importance of tribal rights and cultural value of the land in the context of the wind projects’ development process. One non-indigenous individual commented about the sacrosanct quality of the site:

“...in an area we consider to be a rich marine environment, a sacred place for the Native Americans, and an unspoiled place of beauty. To build in an area the Native Americans consider sacred is tantamount to a form of cultural genocide in a way.”

While many comments reiterate that the area is important for cultural ceremonies, such as an unimpeded view for sunrise ceremonies, others either disregard or dismiss this importance.

“One fact is that the Native American tribes in question will not have their sun greetings blocked in any way by the wind farm. The tribes are located southeast of the proposed windfarm, thus their view east will in no way be impeded.”

Furthermore, while many comments reiterate that the area is important for cultural ceremonies, others extend cultural significance to imply that offshore wind energy is something that indigenous communities *should* value:

“I believe the traditional sunrise ritual of the Wampanoag can be respected without disrespecting the rights of others who enjoy the Sound. I would like to suggest that perhaps a new tradition could be added. Perhaps the Wampanoag and Cape Wind could become partners in creating and sharing a new ritual that recognizes nature’s gifts of both the sun and the wind, two powerful resources, surely meant to be used to sustain all of our lives.”

Others extrapolate, recommending consultation with tribal stakeholders as a signal of respect towards tribal traditional values.

Land and identity

A second major theme was identified as “land and identity,” consisting of eight distinct sub-themes found 191 times among 104 comment documents. Ten percent of the commenters were from self-identified indigenous peoples and one was from a lawyer representing self-identified indigenous peoples. The included codes are: protection of historical & archaeological sites, connection to land, environmental and ecosystem concerns, just transition, land sovereignty, siting and relocation, aesthetics and view, and dependence on natural resources.

These comments center ecological and archaeological concerns relating to tribal and historical value of the sites proposed for the Cape and Vineyard Wind Projects. From these comments, issues of procedural and recognition justice arise. Specifically, the coded comments under land sovereignty as well as historic and archaeological protection relate to the processes and stakeholder engagement that in these cases, fail to include and address concerns from indigenous commenters in the decision-making process in proposing certain sites for both offshore wind farms. Additional coded comments reveal narratives that relate to the history of the land, indigenous responsibilities to the home ecosystem or natural environment, as well as indigenous claims to the territory. Excerpts reference the tribe’s historical “sustaining of ecology” and “aboriginal claims and rights.” Comments within this theme also often refer to indigenous life prior to colonization, acknowl-

edging the historical connection that tribal members have with the environment.

“Nantucket Sound holds great value to the Tribe. We are the people of the First Light. Since time immemorial we have occupied the lands and waters all throughout present-day Southeastern Massachusetts and Cape Cod, from Narragansett Bay to the Neponset estuaries, and these waters represent a spiritual, cultural, and religious connection to our people. Wampanoag peoples walked, lived, died and were buried on the land now known as Horseshoe Shoals, so it is sacred to us. Indeed, during the last ice age, when what is now Nantucket Sound was dry land, our people traveled, lived and buried the dead on that land, which is now beneath the sea. . . . The Wampanoag peoples also depend on the Sound for sustenance and employment because of our long tradition of harvesting the shared gifts of the sea. This way of life is jeopardized by the windfarm and its ancillary components.”

The comments sometimes refer to the landscape as inseparable from the cultural and religious value, demonstrating the close connection among this theme and the “religious, cultural & spiritual value” theme (5.1.1). Land concerns mentioned by indigenous stakeholders related to the cultural, ecological, and ancestral significance that the land and sea has historically brought to the tribes, but, as with other themes, the majority of comments posted were by non-indigenous stakeholders, who may disregard this significance.

“... [I]f the tribe asserts an environmental/spiritual link, then blocking a non-polluting energy source would seem contradictory.”

Process and procedures

The “process and procedures” theme was identified 183 times across 99 documents, 4 of which were self-identified indigenous peoples. The included codes are: tribal rights and obligations, tribal consultation, and stakeholder involvement.

Within the excerpts, this theme encompasses comments concerning legal frameworks with policies such as Section 106 or entities like the Advisory Council on Historic Preservation (ACHP). The comments cite specific policies or entities that mandate certain legal actions to be taken in circumstances relating to indigenous rights and land. Comments often refer to the need for accountability in including tribal stakeholders and adequate consultation in project development, or advocate for appropriate land use according to certain policies. Legal frameworks also designate the responsibility of ensuring stakeholder involvement to certain establishments, such as the Bureau of Ocean Energy Management (BOEM). Phrases like “compensation,” “mitigation measures,” “consultation,” and “environmental assessment” were often invoked in comments when referring to repercussions for failure to adhere to designated legal processes. Legal issues were mentioned often by indigenous stakeholders, who called upon these frameworks to claim rights to consultation in development processes.

... [W]e want not only to be heard, but we want our treaty commitments held up as “paramount law.”

In addition to U.S. treaty rights as referenced above, local tribes also call upon several articles of the United National Declaration on the Rights of Indigenous Peoples and especially the rights of consultation. However, these legal obligations were often cited as a perfunctory step in the regulatory process by non-indigenous peoples with an interest in development:

“...the last-minute delay tactics by the Native American tribes are a disgrace to due process. If they had concerns, they should have been addressed years ago, not at this point. ... Consultation and consid-

eration need not ruin this good project as long as all sides are faithful to the intent.”

Under this theme were also comments that directly proposed alternative solutions to the Cape Wind Project and argued for the placement of Nantucket Sound on the National Register of Historic Places due to its “historic significance” and as a “traditional cultural property.” These comments were not necessarily expressing support for the indigenous value of Nantucket Sound or opposition to offshore wind development in general; rather, they noted intrinsic value to all residents, including fishermen, local residents, and tourists, as a justification for why the project should not proceed in this location. The comments asserted that the Cape Wind project should be relocated to another site that was being considered in the federal review. Comments under this theme also argued for an alternative location as one with less “conflict” and as a form of “compromise,” adhering to the prominent opposition from local residents and the Wampanoag tribes.

Representation in public fora

The narratives identified are primarily advanced by non-indigenous people, who refer to the conflict between indigenous people and offshore wind initiatives in public fora. The comments altogether indicate the lack of indigenous representation within the public comment process. The sample includes comments from self-identified indigenous people (n = 14) and non-indigenous people (n = 285).

In addition to the specific thematic analysis that identified the arguments for or against wind, we reveal that indigenous narratives are co-opted and concerns are disregarded when it fits the pro- or anti-wind sentiment of the individual or organization (Table 4).

We found that 64% of the published documents either appropriated or explicitly sidelined indigenous concerns about the wind project(s). Two commenters were self-identified descendants of indigenous peoples, while two others were from self-identified indigenous peoples, and 186 were not identified indigenous members. These sentiments overlap substantially with other themes discussed above. For example, many individuals depicted the concerns of indigenous communities as similar to their own perspectives.

“Although we are not Native Americans, like our Wampanoag neighbors we feel the heart of our home, Nantucket Sound, is a sacred place which should be preserved.”

Other comments diminished the cultural and historical connection of indigenous peoples to the land and water where the Cape Wind project was being proposed, asserting that the sunrise ceremonies and burial grounds were not significant reasons to delay the process. Others suggest that indigenous communities will not be impacted more than from existing infrastructure:

Table 4
Representation of Indigenous Narratives as discussed in public comment across the study period (2010 - 2020) in support of or in opposition to offshore wind projects proposed off the Massachusetts coast, United States.

Co-Option of Indigenous Narratives	Narratives draw upon indigenous perspectives as a way to push anti- or pro- offshore wind agendas.	209
Appropriation	These comments appropriate indigenous values, either pushing against or using these perspectives to further their own motives.	140
Devalue	Narrative under this code specifically undermine or diminish indigenous values and perspectives, particularly those in opposition to offshore wind.	90

“I believe that the Nantucket Sound wind farm will be no more detrimental to the sacred grounds of the native peoples than any of the other buildings and structures along the Massachusetts coast.”

Further comments described the indigenous perspectives towards the proposed offshore wind projects as “*phony fabrications*,” “*ludicrous*,” and claims with “*no merit*.” Others implied that the indigenous peoples were against the Cape Wind project only because they were being paid by anti-wind organizations, presumably to further these organization’s causes against development.

Discussion

Our research questions examine how indigenous perspectives are represented in the public decision-making process for offshore wind development. Our goal in conducting this study was to 1) identify the narratives that are put forward in public fora attributed to indigenous perspectives on offshore wind energy development, and the potential motives of these narratives; and 2) identify whether the standards of energy justice were met or unmet in this process, and whether there are tradeoffs among energy justice principles in offshore wind development decision-making processes.

The comments posted in response to both the proposed offshore wind projects in this study point to a troubling, but perhaps not surprising, pattern where indigenous concerns are ignored or co-opted based on the utility for or against a proposed development. In devaluing or disregarding the indigenous perspectives, many comments made assumptions that indigenous people opposed the transition to renewable energy in general. These comments placed the agenda for clean energy in competition and at odds with indigenous interests, often stating that in order for the government to address climate change, it must overlook indigenous interests for the sake of the collective good. This is not unique to offshore wind, but instead continues and perpetuates a colonial legacy where relationships between tribes and government, and complacent citizens, are ignored, disregarded, or co-opted for their utility in a given context. Further, co-opting the arguments of stakeholders for personal gain has been seen in the energy sector, and to the detriment of those stakeholders. Healy, Stephens & Malin [59] identify that proponents of a natural gas plant in coastal Massachusetts co-opted the energy injustice arguments made on behalf of coal miners from the aging coal plant at that location, thereby ignoring the injustices brought about by hydraulic fracking, and successfully utilized these narratives to advance their position.

Energy (in)justice?

These findings highlight elements of energy injustice. The co-opting of narratives and sidelining of indigenous concerns speak to the ways in which the transition to renewable energy does not guarantee a more just world. Through analysis of comments on both the Cape Wind and Vineyard Wind projects, our results suggest substantial concern regarding the procedure of offshore wind development. When applying the findings to a lens of the “triumvirate” energy justice framework, there are notable alignments. Firstly, the theme “process and procedures” make clear that the need for improved consultation is prominent in the narratives ascribed to indigenous communities on legal and ethical bases. It is evident that there exists a widespread concern that indigenous communities had not been adequately included in decision-making.

The legal frameworks mentioned in many of the comments, including Section 106 and the National Environmental Policy Act

(NEPA), call upon the obligation to include indigenous voices in a more substantive way through development processes. However, it is important to note that the current legal frameworks that guide development processes only require the consultation of stakeholders and do not allow stakeholders full autonomy. While legal frameworks can play a powerful role in evaluating environmental justice issues in relation to the energy sector, our research shows that in the context of Section 106 and NEPA, these frameworks in practice falter in achieving energy justice within these development processes.

As stated in Arnstein’s 1969 *A Ladder of Citizen Participation* [59], there is a critical difference between participation in a process and having power to meaningfully affect the outcome. Participation without effect can result in frustration, distrust, and ultimately, the reinforcement of historical injustice. In order to achieve an equitable energy transition, current literature identifies the need for communication amongst all stakeholders, particularly with indigenous communities where unjust fossil fuel extraction and exploitation has occurred for centuries [61]. This necessitates a redistribution of power in the process such that the voices of those who have historically been excluded from decision-making processes are deliberately included and promoted in the future [60].

While consultation is crucial in engaging all stakeholders, it is only one aspect of achieving energy justice. The co-opting of indigenous narratives for their utility for or against wind power is related to recognition justice, which recognizes that affected people are not equally impacted. The ways in which indigenous concerns are disregarded through a process that aims to be inclusive of all voices points to procedural justice and recognition justice existing in conflict. Specifically, the consultation process aims to be inclusive by inviting all public comment, yet the public are not all affected in the same way. The challenges that arise from promoting inclusivity through the process (procedural justice) may give outsize voice to lesser impacted communities, which is inadvertently in conflict with recognition justice. As noted by McHarg [31] “An emphasis on participation and voice may serve to further empower the already powerful and articulate at the expense of vulnerable groups, and it may be particularly difficult to give adequate recognition to the needs and interests of those distant in time and space, such as future generations or international groups.”

Ensuring energy justice is rarely the sole responsibility of a singular decision-maker and can therefore be difficult to track and measure. Examining other energy justice frameworks illuminates other considerations and for applied justice research. For example, in the principle-based approach Sovacool & Dworkin [29], a relevant principle is good governance, in which all people must have equal access to information. Another is due process: decision making around an energy project must provide appropriate opportunities for meaningful consultation at the aggregate and individual level at scales comparable to the level of impact, and also have access to recourse and arbitration [28]. And for more emergent framings: resistance, where injustice should be actively opposed; and intersectionality, where critical examinations of how energy decisions intersect with already marginalized groups, such as by race, gender, or heritage [29]. Our evaluative approach of addressing energy justice identifies where injustice may be occurring in the decision-making process for offshore wind projects that conflict with places of spiritual, historical, and cultural value. Jenkins et al. [23] urge researchers to examine both evaluative and normative dimensions of energy justice. Within the context of distributive justice, mechanisms of inclusion include mobilizing local knowledge, transparency, and representation in institutions [23]. It is evident that the public scoping process is designed in such a way to include at least two of these solutions: local knowledge and transparency. However, the operationalization of the public

engagement process does not seem to have achieved these principles. Like many injustices found within the energy system, we do not identify nefarious intent on behalf of decision makers, yet the perceptions of indigenous communities that were able to participate in the process allude to a mismatch of intent and outcome.

Vickery & Hunter [62] argue that environmental justice (EJ) issues for indigenous communities should be considered more broadly than typical EJ metrics. For example, cultural distinctiveness and tribal sovereignty are among the unique characteristics of tribes that require a more nuanced approach to both EJ research and policy outcomes. Such criteria for evaluating EJ for tribes has been proposed, with specific recommendations for inclusion in the NEPA process [63]. The authors argue that the NEPA process is adequate as a framework, but make specific and comprehensive recommendations for inclusion of quantifiable metrics that more fairly assess the impact to tribes than the measures typically used (such as monetization of impacts), they identify how these metrics can be included in the impact analysis in the NEPA framework. Notably, they assert the importance of including indigenous narratives and that these narratives should be provided by tribal communities themselves.

Finally, given the opportunity to express concerns, indigenous groups should not be assumed to be in favor of or in opposition to offshore wind development. Rather, both the comments from indigenous perspectives and their historical resistance to offshore wind projects demonstrate a need to consider the role that traditional ecological knowledge and relationships with the land play in environmental governance. Indigenous historical and cultural connection to the environment should not be viewed as a barrier to development but rather an important component to be considered as both indigenous and non-indigenous actors collaborate to create a more sustainable, renewable energy-driven future for all [64].

Conclusion

Our findings of the Cape Wind and Vineyard Wind projects combat the assumption that clean energy transitions are by default just transitions, in indicating justice issues within offshore wind development processes. The public comments reveal various thematic concerns pertaining to offshore wind projects. These themes intersect with issues of distributive, procedural and recognition justice, but also reveal a more complicated story where colonialist legacies are perpetuated. Therefore, in combating climate change and contributing to a just energy transition, addressing equity and justice concerns that are inherent within current energy development is urgent. The results of our study confirm that statutory requirements for consultation may not achieve the goal of participatory governance, and further, that many of these comments are co-opted, and therefore may not meet the standards for energy justice. The comments from indigenous perspectives indicate that identities, heritage and histories of indigenous peoples are inextricably linked to the land, and thus recognizing the historical and cultural value of the land and including indigenous perspectives in stakeholder involvement is the first step to address these concerns.

The fossil fuel industry has for centuries solidified injustices and power imbalances as determined by factors related to race, class, sex, and geographical location, such that marginalized communities have historically borne the brunt of negative effects related to fossil fuel extraction and energy production. Our research indicates that renewable offshore wind energy holds the potential to replicate these same structures of injustice when energy justice is not actively and carefully promoted. The governmental and societal institutions that the United States rests upon have laid the

groundwork for perpetuating environmental injustices for indigenous peoples, through long histories that are inherently tied to the extractive nature of colonialism and capitalism [65]. Our research indicates the need for these processes to be refined so as to promote more substantive opportunities for engagement and inclusion.

Limitations

The limitations of our research include the lack of representation of indigenous people in public comments, as well as the barriers to publicly available information. Access to and knowledge of the Federal Register and open commenting periods are not universally available. Furthermore, in conducting our preliminary research, we found limits to the kinds of information that is publicly available to constituents, such as meeting notes as well as further means of communication between decision makers and stakeholders. Finally, we acknowledge that none of the authors identify as members of an indigenous tribe. It must also be noted the inherent bias associated with academic research that comes from institutions that historically privilege Western forms of knowledge. In response, our study aims to be transparent in data collection steps for future research to replicate and build on our results.

Future research

Future research on this topic should aim to include a greater number of self-identified indigenous stakeholders, in order to increase sample size and ensure a saturation of diverse viewpoints within indigenous perspectives. Researchers should also include more direct methods of data collection, in a participatory manner, that elevates the voices of indigenous communities themselves. Future research could explore issues of procedural justice and how social and legal frameworks can repair systems that exclude certain impacted communities from decision-making. This would be best achieved through directly engaging indigenous voices or through leadership by indigenous scholars in further research on this topic. Thus, research and recommendations surrounding indigenous perspectives on offshore wind energy may allow for a just and thoughtful transition to renewable energy.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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References

- [1] J.C. Stephens, *Environ.: Sci. Policy Sustain. Dev.* 61 (2) (2019) 4–13.
- [2] P. Gilman, B. Maurer, L. Feinberg, A. Duerr, L. Peterson, W. Musial, A. Moore, National offshore wind strategy: facilitating the development of the offshore

- wind industry in the United States (No. DOE/GO-102016-4866). EERE Publication and Product Library, 2016.
- [3] W. Musial, P. Beiter, P. Spitsen, J. Nunemaker, V. Gevorgian, 2018 Offshore Wind Technologies Market Report. United States, 2019, <https://doi.org/10.2172/1572771>.
- [4] J. Firestone, W. Kempton, M.B. Lilley, K. Samoteskul, *J. Environ. Plann. Manage.* 55 (10) (2012) 1369–1386.
- [5] C. Haggett, *Energy Policy* 39 (2) (2011) 503–510.
- [6] B. Wiersma, P. Devine-Wright, *Wiley Interdiscip. Rev. Clim. Change* 5 (4) (2014) 493–507.
- [7] C. Haggett, T.T. Brink, A. Russell, M. Roach, J. Firestone, T. Dalton, B.J. McCay, *Oceanography* 33 (4) (2020) 38–47.
- [8] D. Bell, T. Gray, C. Haggett, J. Swaffield, *Environ. Polit.* 22 (1) (2013) 115–135.
- [9] A. Bates, J. Firestone, *Energy Res. Social Sci.* 10 (2015) 192–205.
- [10] J.A. Hamilton, *Conn. L. Rev.* 44 (2011) 1383.
- [11] A.R. Milbrandt, D.M. Heimiller, P.D. Schwabe, Techno-Economic Renewable Energy Potential on Tribal Lands (No. NREL/TP-6A20-70807), National Renewable Energy Lab.(NREL), Golden, CO (United States), 2018.
- [12] S. Kerr, J. Colton, K. Johnson, G. Wright, *Marine Policy* 52 (2015) 108–115.
- [13] K.R. Unger, *Loyola Los Angeles Law Rev.* 43 (2009) 329–372.
- [14] M. Maruca, William Mary *Environ. Law Policy Rev.* 43 (2) (2019) 391–499.
- [15] R.D. Stefanelli, C. Walker, D. Kornelsen, D. Lewis, D.H. Martin, J. Masuda, H. Castleden, *Environ. Rev.* 27 (1) (2019) 95–105.
- [16] K.A. Carpenter, J.A. Jampolsky, Indigenous peoples: From energy poverty to energy empowerment, in: *International Energy and Poverty*, Routledge, 2015, pp. 63–76.
- [17] N. Mercer, P. Parker, A. Hudson, D. Martin, *Energy Res. Social Sci.* 62 (2020) 101382.
- [18] P. Meisen, T. Erberich, *Renewable Energy Tribal Lands* 619 (2009) 1–28.
- [19] N. Healy, J. Barry, *Energy Policy* 108 (2017) 451–459.
- [20] S. Carley, D.M. Konisky, *Nat. Energy* 5 (8) (2020) 569–577.
- [21] D. Schlosberg, *Defining Environmental Justice: Theories, Movements, and Nature*, Oxford University Press, 2009.
- [22] D.A. McCauley, R.J. Heffron, H. Stephan, K. Jenkins, *Int. Energy Law Rev.* 32 (3) (2013) 107–110.
- [23] K. Jenkins, D. McCauley, R. Heffron, H. Stephan, R. Rehner, *Energy Res. Social Sci.* 11 (2016) 174–182.
- [24] K.E. Jenkins, B.K. Sovacool, N. Mouter, N. Hacking, M.K. Burns, D. McCauley, *Environ. Res. Lett.* 16 (4) (2021) 043009.
- [25] K. Jenkins, D. McCauley, A. Forman, *Energy Policy*. 105 (2017) 631–634.
- [26] M. Lacey-Barnacle, C.M. Bird, *Appl. Energy* 226 (2018) 71–81.
- [27] M. Lacey-Barnacle, *Energy Res. Social Sci.* 69 (2020) 101713.
- [28] B.K. Sovacool, M.H. Dworkin, *Appl. Energy* 142 (2015) 435–444.
- [29] B.K. Sovacool, M. Burke, L. Baker, C.K. Kotikalapudi, H. Wlokas, *Energy Policy* 105 (2017) 677–691.
- [30] P. Birnie, A. Boyle, C. Redgwell, *International Law and the Environment*, Oxford University Press, 2009.
- [31] A. McHarg, Energy justice: understanding the 'ethical turn' in energy law and policy, in: I. del Guayo, L. Godden, D.D. Zillman, M.F. Montoya, J.J. González (Eds.), *Energy Justice and Energy Law*, Oxford University Press, Oxford, UK, pp. 15–30.
- [32] K. Yenneti, R. Day, O. Golubchikov, *Geoforum* 76 (2016) 90–99.
- [33] G. Thomas, C. Demski, N. Pidgeon, *Energy Res. Social Sci.* 66 (2020) 101494.
- [34] T. Kalt, *Environ. Polit.* (2021) 1–20.
- [35] R.J. Heffron, *Renew. Sustain. Energy Rev.* 156 (2022) 111936.
- [36] S. Batel, *Energy Res. Social Sci.* 68 (2020) 101544.
- [37] J. Greenhowe, *Pittsburgh J. Environ. Public Health Law* 7 (2) (2013) 279–304.
- [38] E.K. Warner, K. Lynn, K. Whyte, *UC Davis L. Rev.* 54 (2020) 1127.
- [39] Advisory Council on Historic Preservation (ACHP). <https://www.achp.gov/protecting-historic-properties/section-106-process/introduction-section-106> (accessed 29 November 2020).
- [40] A.K. Bevan, U. Pa. *JL Pub. Aff.* 6 (2021) 561–601.
- [41] R. Shelby, Y. Perez, A. Agogino, *Sustainability* 4 (5) (2012) 794–818.
- [42] E. Zárate-Toledo, R. Patiño, J. Fraga, *Energy Res. Social Sci.* 54 (2019) 1–11.
- [43] S. Batel, *J. Environ. Plann. Policy Manage.* 20 (3) (2018) 356–369.
- [44] A.L. Booth, We are the land: Native American views on nature, in: *Nature across Cultures*, 2003, pp. 329–349. Retrieved from https://link.springer.com/chapter/10.1007/978-94-017-0149-5_17.
- [45] R. Cowell, G. Bristow, M. Munday, *Wind Energy and Justice For Disadvantaged Communities*, Joseph Rowntree Foundation, 2012.
- [46] Federal Register, 2020–2021. <https://www.federalregister.gov>.
- [47] BOEM, Draft Supplemental Environmental Impact Statement for the Cape Wind Energy Project MMAA104000, 82. Fed. Reg. 16060 (March 31, 2017) (to be codified at 40 C.F.R. 1506.6.), 2047
- [48] MMS, Environmental Assessment Prepared for Proposed Cape Wind Energy Project in Nantucket Sound, MA, 75. Fed. Reg. 10500 (March 8, 2010), 2010a.
- [49] MMS, Notice of Availability of the Revised Minerals Management Service Documentation of Section 106 Finding of Adverse Effect for the Proposed Wind Energy Project, 75. Fed. Reg. 3922 (January 25, 2010), 2010b.
- [50] BOEM, Environment Impact Statement; Vineyard Wind LLC's Proposed Wind Energy Facility Offshore Massachusetts, 83. Fed. Reg. 63184 (December 7th, 2018), 2018.
- [51] BOEM, Supplement to the Draft Environmental Impact Statement for Vineyard Wind LLC's Proposed Wind Energy Facility Offshore Massachusetts and Public Meetings, 85. Fed. Reg. 35952 (June 12, 2020), 2020.
- [52] V. Braun, V. Clarke, *Thematic Analysis: A Practical Guide*, Sage, 2021.
- [53] J.W. Creswell, *Qualitative procedures. Research Design Qualitative Quantitative and Mixed Methods Approaches*, second edition, Sage Publication, USA, 2003, pp. 179–197.
- [54] L.S. Nowell, J.M. Norris, D.E. White, N.J. Moules, *Int. J. Qual. Methods* 16 (1) (2017), 1609406917733847.
- [55] Dedoose, Version 8.3.4. Los Angeles, CA: SocioCultural Research Consultants, LLC, 2021, www.dedoose.com.
- [56] K. Charmaz, *Constructing Grounded Theory*, Sage, 2014.
- [57] J. Saldaña, *The Coding Manual for Qualitative Researchers*, Sage, 2016.
- [58] A.M. Dussias, *Am. Indian L. Rev.* 38 (2014) 333.
- [59] N. Healy, J.C. Stephens, S.A. Malin, *Energy Res. Social Sci.* 48 (2019) 219–234.
- [60] S.R. Arnstein, *J. Am. Inst. Plan.* 35 (4) (1969) 216–224.
- [61] K. Manley-Casimir, *Rev. Eur. Commun. Int. Environ. Law* 20 (1) (2011) 29–38.
- [62] J. Vickery, L.M. Hunter, *Soc. Nat. Resour.* 29 (1) (2016) 36–52.
- [63] S. Harris, B. Harper, *Environ. Justice* 4 (4) (2011) 231–237.
- [64] K.P. Whyte, *Ecol. Process.* 2 (1) (2013) 7.
- [65] K. Whyte, *Wiley Interdiscip. Rev. Clim. Change* 11 (1) (2020) e603.