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Offshore Wind Farm in Rhode Island: Tourism Impacts

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Introduction

Due to the high tourism rates and historical value of Newport, any changes to the dynamic of the city involve numerous parties. The Historical Society of Newport and year-long occupants have expressed concerns of the impact of tourism with the presence of offshore wind turbines off the Newport coast. Our research poses questions that address these concerns making connections to current case studies and research based on other offshore wind farms and their experiences with tourism. Based on the collection of our research, we expect the offshore wind farm to cause little negative impact on tourism and may even encourage visitors to Newport.

Overview of Debate

There is much debate about whether the installment of off-shore wind-turbines will negatively impact tourism in Rhode Island. In order to better understand the perspectives on off-shore wind turbines, one must uncover the various arguments and their supporting evidence. The two sides of the issue are those in favor of off-shore wind and those against it; those that fall into the intermediate are often not knowledgeable about the situation or feel that the issue does not pertain to them. From a North Carolina State University survey, research showed that around ⅕ of surveyors shared that they held no solid opinion about the wind turbines, (p 7). Another argument to be made is that the residents that claim to be most affected by the turbines are from a select socioeconomic class and the claim derives from the aesthetic depreciation of their view. Furthermore, these individuals often do not reside in Newport for the entirety of the year and can afford alternative energy sources. Those that are most in need of a diversified energy source are likely those from lower-socioeconomic standings, those with unpredictable income, and minority groups. Within the central argument, there are sub-arguments, such as (1) who will benefit from tourism profits if the wind turbines attract tourists? and (2) who will receive the energy from the

offshore wind turbines? Though these questions will not be necessarily addressed at this moment, it is important to consider that there are likely to be more conflicting perspectives following the installment of the wind turbines.

As one of the central leaders in American renewable energy, Orsted has researched the potential negative externalities that may result following their installation. In a study from the University of Delaware, researchers discovered that only 10% of beachgoers expressed disinterest in the beach due to the presence of wind farms 20 miles from the beach, (p 2). By exploring the possible negative externalities, Orsted has aimed at clearing any misconceptions about offshore wind as well as clarifying the reasoning behind disinterested groups. Another supporting viewpoint from the *Japan Times* shared that offshore wind turbines provide a huge opportunity for local tourism revenue, (Rudgard, p 8). Furthermore, this source expressed that results from former studies have shown that beach tourism does not experience diminished attendance with the presence of offshore wind turbines. As a prominent tourist hub, Newport will only benefit from the installation of offshore wind turbines and fulfill a specific niche of wind turbine tourism in the United States.

On the other hand, opposing perspectives have provided their research to display how tourism [specifically beach house rentals] will be negatively impacted by the presence of offshore wind turbines. Journalist Jon Sanders from the John Locke Foundation explained how a little over half of the renters (54%) would not rent again in the same location (even with a discounted rate) if there were wind turbines present offshore (not necessarily visible), (Sanders, p 7). Sander's supporting evidence for his argument was sourced from a research study that took place at North Carolina State University. Much of research for this project has shown that the evidence against wind turbines typically comes from the same few sources, the North Carolina

University research study being one of the most prominent scientific sources. The apparent trend for opponents of the wind turbines is that they are utilizing the few scientific research papers that they have in order to help validate their point.

The central question for this issue is 'What is this issue actually about?'. There has to be some duality of this issue that is greater than just those who are against wind turbines and those who are in support. Such a dichotomy is a trivial issue that should be relatively easy to solve, so why has there been so much media attention and misinformation about this issue? The true candidates for this political battle are likely to be the upper-class versus the mid-to-low socioeconomic standing. Proponents of the Newport Historical Preservation Society are likely going to be wealthier members who have available free time to be a part of a local organization. The Newport Historical Preservation Society is against the installment of offshore wind because they claim that the wind turbines will take away from the value of the historical properties. The agenda behind the Newport Preservation Society is maintaining the historical integrity behind Newport; those that are likely going to be against the offshore wind for Rhode Island will likely be the residents on Ocean Drive. A quick trek along Ocean Drive will show where the majority of "Save Our Seas" or "Keep It Wild" signs are located. The reasoning, however, has little-to-nothing to do with the conservation of our oceans and the preservation of its diversity.

Unfortunately, when the wants of the wealthy meet the people's common sense, more often than not the wants prevail. This comes at a disadvantage for other groups of people that are trying to modernize the infrastructure and design of the Newport area to better support its population, become more environmentally considerate, and provide more equitable access for minority groups. One of the points from NCSU's research that seems to be valid is their concern over the variables of visibility and proximity; the impacts of the offshore wind turbines on

tourism would be entirely dependent on the proximity and visibility from the shore, (North Carolina State University, p 9). The closer the wind turbines are located to the shore, the more unattractive the shoreline will appear and the greater likelihood that tourism will be negatively impacted.

Effects of Off-Shore Wind on Historic Resources

In its federal appeal against the US Department of the Interior and the Bureau of Ocean Energy Management (BOEM), the Preservation Society of Newport County claims a failure of the BOEM to comply with the National Environmental Policy Act (NEPA) and the National Historic Preservation Act (NHPA) in its authorization of wind farm projects proposed by Revolution Wind Farm and Southfork Wind Farm. The appeal states that the "Proposed projects will inflict severe and long-lasting effects on the character, community, and heritage-tourism-driven economy of Newport, including historic properties that depend on this economy for their preservation activities" (*Newport Preservation v BOEM*, 2023 p 2). On the Preservation Society of Newport County's website, it is stated that "BOEM concludes this will cause a major adverse impact to Newport's sense of place and economy" (*Newport Mansions*). The Newport Preservation Society has made it clear that they are concerned with legal failures on behalf of the federal agencies, adverse economic impacts, and the effects wind farm development will have on Newport's community and sense of character. While legality issues and economic impacts are concerns that are largely quantifiable, the question of character and community is a qualitative issue with complex ideas of aesthetics and historic integrity at its core. The appeal filed by the Preservation Society of Newport County is one example of many similar conflicts between preservation interests and sustainability efforts. The following section explores the potential effects offshore wind farm construction may have on historic resources in Newport, RI.

Viewshed

It is clear that the adverse visual effects that off-shore windfarm development may have on historic viewsheds are one of the main concerns of those with historic preservation interests. On their website, the Preservation Society states that wind farms will take up "100% of ocean views from key community sites for the next 30 years." In the appeal of the approval of the Revolution Wind project, it is stated that off-shore wind farms "will despoil ocean views to and from hundreds of historic properties along the coastline…" (*Newport Preservation v BOEM*, 2023 p 6). Disruption of historic viewsheds can negatively affect historic and cultural resources, including historic properties listed on the National Register of Historic Places (NRHP). The NHRP offers historic places the benefits of grant qualifications and tax reductions, and requires that federal agencies take into account the adverse effects any federal undertaking will have on areas on or eligible for the NHRP. In order for a historic property to be listed on the NRHP, it must exhibit significance in one of four points of criteria: historic event, person, design/construction, and information potential. Additionally, a historic property must retain historic integrity to be listed on the NRHP. A property's integrity is judged on many different aspects, including location, design, setting, materials, workmanship, feeling, and association. As stated in the guidance for the NHRP, "The evaluation of integrity is sometimes a subjective judgment, but it must always be grounded in an understanding of a property's physical features and how they relate to its significance" (NHPA, 1966).

When changes to the surrounding area of a historic property occur, it is possible for historic integrity to be affected or diminished. In the case of offshore wind farm construction, the historic integrity relating to aspects of location, setting, and feeling of Newport's historic resources can potentially be impacted. The NHPA requires that any adverse effects to the historic

integrity of cultural resources be assessed and reviewed by federal agencies before a federal undertaking takes place. The BOEM identified historic properties in Newport, RI and determined the adverse effects in their environmental assessment process.

Historic Properties Affected in Newport

In its environmental assessment, the BOEM established an Area of Potential Effect (APE) and found that 101 above ground historic sites and districts within the APE would be susceptible to adverse visual impacts from the construction of the off-shore wind farm project. Of these, 34 are listed on the NRHP, and 5 are also National Historic Landmarks (NHLs). Four of the historic areas listed on the NHL are located in Newport, RI. These include Ocean Drive Historic District, Bellevue Avenue Historic District, The Breakers and Marble House. Other NHRP properties that fall within the APE are Ochre Point (Cliffs Historic District) and Rosecliff House. Because the NHPA requires that adverse effects of NHL's should be considered with extra care, each of the four NHL's in Newport received a full report on the percentage of the properties affected by the altered viewshed. In all cases, less than 50% of the historic property were in the area of the visual APE (BOEM, p 53).

It is highly unlikely that the construction of offshore wind farms will threaten the protected status of Newport's historic resources listed as NHLs and on the NRHP. The Preservation Society has also expressed concern that the wind farms will negatively impact historic properties that are reliant on Newport's tourism economy. Whether offshore windfarm construction will negatively impact tourism will be explored in the following sections in this report.

How have other "modernizing" projects affected historical integrity/tourism in Newport?

The emphasis on historical preservation and oceanic views in Newport, RI allows for place-based identities to form within the colonial town. People feel attached to the historical value of their city and therefore want to maintain its value. However, does this create a staticity within a modernizing world? In 1968, there were increasing debates of turning Newport into a museum city, similar to colonial Williamsburg. Doris Duke, founder of the Newport Restoration Foundation, urged against the Newport historical building being owned by one organization and instead leased buildings to tenants under the obligation to maintain the colonial appearance. By 2010, over 85 homes were restored to highlight the character of Newport's history. While there were initial hesitations on this transition, the public now appreciates the tourist attraction. Offshore wind farms may present a similar opportunity.

The United States, as a whole, has been falling behind in turbine energy with Europe and China generating the majority of power. Resistance on a local and federal level may contribute to the hesitation with wind farms and the slowing of the process all together. The United States will likely improve the amount of wind farms in the coming years considering the federal government has deemed sixteen areas off the Athlantic coast reserved for turbine energy development. Throughout the duration of this planning period, it allowed an opportunity for social debate on the effects of wildlife, tourism, visual impacts, and fairness. One primary concern is distributive fairness in which communities near the developments notice the poor effects of the debated issues while the electricity is benefiting communities who are not suffering these consequences. In fact, projects off the coasts of Massachusetts, Delaware, and New Jersey have failed due to lack of public support. The prospect of eliminating this controversy could speed up the wind farm building process, thus save money, and serve to better our environmental impact.

Bidwell et al. (2022) aimed to discover what efforts can be made to ease the public concerns associated with distributive fairness. The researchers first analyzed 419 Rhode Island participants and their perceptions of the Block Island Offshore Wind Project in 2016, 2017, and 2018. To compare, they performed a similar study amongst New Hampshire residents in eighteen different locations. Both research groups were surveyed based on their opinions of the energy being used in their home states versus sold out to other locations (Rhode Island to New York and New Hampshire to Maine). These studies indicate that both states prefer the resources to be distributed within their own state considering they feel they are losing something (i.e. pristine views). Interestingly enough, these states also preferred the energy resources to be distributed to closer proximity states rather than farther destinations. The researchers connect this data to regionalism and concern for maintaining a connection between states. Their theories suggest support for specific states may represent underlying relationships such as political opinions or sports rivalries. Therefore, Rhode Island specifically preferred the wind energy to be distributed locally or to neighboring states, rather than New York. Since there are conflicting views on the off-shore wind-turbines, this data may be used to convince Rhode Island citizens of distributional fairness and how the wind farm might directly impact them.

How have past offshore wind farms impacted tourism?

In order to determine potential impacts on tourism in Newport after wind farms are implemented off the coast, it is imperative to examine past studies around the world to see how their rates of tourism were affected. Overall, in nearly every case examined across the world, the implementation of these turbines posed little to no negative impact on tourism. In fact, Glasson (2022) found that near-coast offshore wind farms can act as a tourist attraction, since they're innovative in nature. The locations that will be examined feature offshore wind turbines installed

near Block Island, Portugal, Iceland, France, the Dutch Coast, as well as other areas off the European coast. Every report regardless of the location suggested that the incentives of leaning towards more sustainable energy efforts greatly outweighs the potential negative aspects that come along with adapting to new construction.

Examining the tourism and recreation trends in Block Island after the first construction of an offshore wind farm in the United States can paint a picture of how future turbines in Rhode Island waters could impact the way we enjoy interacting with coastal activities. The five constructed turbines sit approximately 3.8 miles offshore, generating enough energy to power the entirety of the island that historically ran on diesel generators. A study conducted by Tenbrink and Dalton (2018) suggested that there was a notable increase in recreational fishing around the turbines, which ended up crowding out commercial fishermen that used to fill the area. The construction of wind turbines sparked a new culture of recreational activities for travelers and locals alike. Jeremy Firestone, a University of Delaware professor took a boat trip to see the turbines after their initial construction, calling it "Disneyland for Adults." It seems as though with time, the turbines become less of a visual eye-sore and more of a sustainable wonder for tourists.

Another study conducted by Carr, Harris, and Lang (2019) finds that construction of wind farms had a positive impact on the rental market: revealing a significant increase in AirBnB revenue since the construction of the wind farm in Block Island. Trandafir et al. (2020) put together a research study consisting of two focus groups who participated in surveying and questioning from a non-biased point of view in regard to the turbines, Block Island as an area to travel to, and how they enjoyed their past trips. Results from this survey revealed no negative impacts from the wind farm on any recreational activities, and highlighted the positive

association the surrounding community has embraced between turbines being constructed and an increase in boating and fishing non-commercially. Their overall argument suggests that the effect of these offshore turbines are relatively benign, and in some cases positive on the tourism industry.

Moving on to an examination of Portugal's offshore wind farms, all prior research suggests a fear of adverse effects on tourism locally, since the constructions could pose a visual pollutant to the surrounding landscape. A study conducted by Silva and Delicado (2017) set out to conduct interviews over a span of years in Portuguese villages. Although the initial aesthetic fears were addressed, after every interview, all residents expressed a support for wind energy, but they weren't too happy with the uneven distribution of profit going back to the farmers and not into the community itself. Anyone interviewed that was visiting the area noted they were highly visible, but it did not pose a negative outcome to their travels. Hesitancy and comments that relate to the past way of gaining energy can be combated by suggestions of wind energy being "clean" and "environmentally friendly." This is yet another example of a location where offshore wind did not negatively impact the tourism and recreation activities in a coastal area.

Examining Iceland's experience with offshore wind turbines, their pivot towards renewable wind energy opened the doors to posing as a potential tourist attraction, including an information center to provide visitors with resources about the area and the turbines themselves. A study conducted by Wendt et al. (2020) relied on phone interviews to gain the perceptions and opinions of the tourism industry. Residents did raise concern over whether the visual impact of the construction would be damaging to the tourism industry. However, they also expressed that renewable energy has a positive image that tourists could look toward during their visit. Results from the interviews suggest that the further away from land, the better public opinions were.

They show large support in constructing an information/visitor's center as a method to gain more profit from a new construction close to shore. This study held the most hesitancy and controversy among every case examined, yet no concrete evidence of a decline in tourism was expressed. The concerns of the public point toward a flaw in our human nature: a deep resistance to and fear of change.

Europe historically has much more experience with offshore wind turbines, compared to the single farm constructed on United States waters at this time. Since they've been implementing this technology for longer, they've had a chance to test out tourist activities, like boat tours that sail under the blades and an opportunity to climb a turbine in Denmark as a small excursion. In Denmark, the implementation of wind turbines has had an increase on tourism rates according to American Clean Power (2024.) Even property values of homes and rentals within view of a turbine remained unaffected. Its tourism office "believes the negative effects are minimal and outweighed by the positives." A study conducted by Westberg et al. (2013) found that French turbines located no closer than 12km from the shore would not impact tourism in a negative way. However, there was also an emphasis on proper coherent environmental policy associated with any recreational activities around the turbines themselves. Glasson et al. (2021) examined that along the Dutch coast, there was exclusively positive feedback regarding visual impacts from tourists in the area. Overall, examining these various sites of offshore wind farms in European waters shows minimal negative impact on tourism and recreation in the area. From the local perspective, there was an overall sense of pride towards their renewable energy efforts.

After examining multiple locations that all employ offshore wind turbines as an energy source, the argument can be made that there is very minimal adverse effect on tourism and recreation rates. There was a common theme of initial resistance towards embracing a new form

of technology from the local perspective across all research. However, once the farms were constructed, they either encouraged more tourists to frequent the area and interact with the turbines, or posed no threat to property and rental values in the area. As Newport prepares to embrace the new wave of construction, it could be useful to model tourism efforts off of some that have been embraced across Europe.

How has public opinion changed after installation of wind farm projects in other locations?

Since Newport has the added value of high tourism rates, decisions for the city deserve the occupants and the tourists opinions. The concern lies in the cost of construction of these projects and if it outweighs the cost benefits of the tourism industry. In understanding this cost analysis in other tourist-heavy locations, South Korean researchers analyzed their government's plan to expand renewable energy from 2.2% in 2016 to 20% in 2030. Over 67 locations in South Korea had similar concerns as Rhode Island's, in which community members assumed the disturbance of ocean view, boating, and marine environments. However, their researcher shows that not only will tourism not be affected, it may actually improve with the appearance of wind farms. The researchers counter the tourism argument with the assumption that these critiques may have preconceived notions of wind energy or environmental issues.

These researchers used literature review to either support or contradict the tourism claims. One study completed by Smythe, Bidwell, and Tyler (2021) analyzes the attitudes of recreational angler's on wind farms and find they favor the effort of green energy and it does not impact their fishing. Another source, Carr-Harris and Lang (2019) used Airbnb data to analyze effects on short-term rentals and found a significant increase in rentals in the presence of wind farms. While this researcher is encouraging for the tourism impact on wind farms, it is clear that

there is a research gap in the aftermath effects on tourism (Oh, et. al., 2023). Regardless, it can be assumed that people's attitudes towards turbine energy is derived from economic measurement of tourism impact. If there is a chance of increased tourism and therefore increased revenue to these sea-scaped towns, people are more likely to be supportive of the cause. However, more research is required to further this argument and outsource the message.

Offshore Wind as a Tourism Asset

Offshore wind farms in Rhode Island, such as the one located off the coast of Block Island, have become a significant attraction for tourists. These wind farms are not only crucial for renewable energy production but also offer unique experiences and opportunities that draw in visitors. Between their size and uniqueness, these wind farms are foreign to most tourists. This gives areas like Block Island an additional attraction to boost their tourism rates and stimulate their local economy further than before. Therefore, these wind farms have become assets to areas that garner large amounts of tourism.

Firstly, offshore wind farms like the ones in Rhode Island are marvels of engineering and technology. An article found on *Fortune's* website mentions that they feature some of the largest rotating devices on the planet. The article details that each turbine is over 800 feet tall and can rotate at speeds up to 200 miles per hour. This sheer scale and innovation are inherently fascinating to many people, especially those interested in sustainable energy and environmental conservation. Tourists are often drawn to such impressive feats of human ingenuity, making offshore wind farms a compelling attraction and a phenomenal asset.

The location of these wind farms adds to their tourist appeal as well. Rhode Island's coastal beauty is already a magnet for tourists seeking picturesque landscapes and outdoor activities. The presence of offshore wind farms enhances this attraction by offering a unique

combination of natural beauty and modern technology. This pair is seldomly found on our planet, let alone in a historic area like Rhode Island. Visitors can enjoy the stunning ocean views while observing the massive wind turbines in action, creating a memorable and educational experience.

Additionally, offshore wind farms contribute to the local economy and community, which can further attract tourists. The development of these wind farms creates jobs, stimulates economic growth, and supports sustainability initiatives. Tourists are often interested in supporting environmentally friendly initiatives and experiencing destinations that prioritize renewable energy and green practices, making places like Block Island ideal. The positive impact of offshore wind farms on the local economy and environment can be a compelling draw for conscientious travelers. The educational aspect of offshore wind farms adds value to the tourist experience too. Many wind farms offer guided tours and educational programs that allow visitors to learn about renewable energy, wind power technology, and the environmental benefits of such initiatives. These educational opportunities appeal to a wide range of tourists, from students and researchers to environmentally conscious travelers looking to expand their knowledge.

Another way these offshore wind farms attract tourists is through recreational fishing. Offshore wind farms in Rhode Island can have positive effects on fishing, particularly due to the unique ecosystem they create around their structures. A study titled, “Demersal Fish and Invertebrate Catches Relative to Construction and Operation of North America’s First Offshore Wind Farm,” was published in the ICES Journal of Marine Science. The study found that the first US offshore wind farm, which includes projects off the coast of Rhode Island like the Block Island Wind Farm, has had no negative impact on fish populations.

In fact, these wind farms can be beneficial for fishing in several ways. One of the key benefits is the growth of shellfish on the base of the wind turbines. The hard surfaces of the turbine bases provide attachment points for various marine organisms, including shellfish such as mussels and oysters. These shellfish create artificial reefs, which in turn attract fish like black sea bass. These are great eating fish and are fun to catch, making these wind farms appealing to fish.

In conclusion, offshore wind farms in Rhode Island are emerging as assets to significant tourist areas for several reasons. Their impressive scale and technological innovation, combined with their scenic coastal locations, contribute to their allure. Additionally, the positive impact on the local economy, coupled with educational opportunities, makes these wind farms appealing to a diverse range of tourists. Recreational fishing is popular among tourists, meaning these wind farms can help increase tourist attraction as well. As the demand for sustainable tourism grows, offshore wind farms are likely to continue drawing in visitors eager to experience and support renewable energy initiatives.

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