# CAPE WIND: The Collapse of the United States' Inaugural Offshore Wind Farm Project

Authors: Makoto Ejima, Joe Gaskin, Parkin Maskulrath, Karanveer Singh

Created: 2015

# **Introduction & Framing the Problem**



Figure 1: Map indicating the location the 'Cape Wind' Project :(n.d.). Retrieved November 26, 2015, from http://i2.cdn.turner.com/cnn/2010/images/04/20/stacks.cape.wind.jpg

The Cape Wind project is located on Horseshoe Shoal in Nantucket Sound off Cape Cod, Massachusetts, United States. The Project was proposed by Energy Management Inc. where it became a part of the United States offshore wind power development with aims to generate 1,500 gigawatts hours of electricity per year. However, building on the multiple views of different stakeholders, uniqueness, complexity, uncertainty and no clear solutions on the impacts of "Wind Turbines in Cap Cod", this paper will aim to explain how the conflict surrounding the Cape Wind controversies at the local, national and international levels (Capewind org. 2015).

Identifying the key dimension to the problem into terms of importance of the controversies, it is clear that we have to give priority to the social aspects of the problem. This is believed to be the spark of the many secondary and tertiary issues such as biodiversity, scientific, economic, and political debates that emerge from Cape Cod. Also it would be important to describe the stakeholders with their different levels of involvements, their potential connections at different levels and their multiple concerns and objectives in the project.

# 1) The "Social Debate":

The key social factors in creating the controversy are tied to the consideration to the economic and financial problems, where it has been suggested that the project will cost around \$2.5 billion. However, the issue has also been affected by its slow progress in building the turbines; as the project has now spent over 15 years dealing with social problems, it is running out of time, money and patience of all the stakeholders (McNamara, 2015).



Figure 2: The Proposed Wind Turbines as suggested in the management plans of Energy Management Inc. Source: Gallucci, M. (2014, July 2). Retrieved from http://www.ibtimes.com/cape-cod-offshore-wind-farm-feds-bet-it-will-finally-get-built-150m-loan-guarantee-1617690

The project's detractors also claim that negative economic externalities will compromise the local community. Stakeholders are debating the possible threats to the coastal biodiversity, fishing industries, and decreasing property prices posed by the turbines, which would be located just 4.8 miles from the shore. With the secondary impacts leading to the decline in local tourism (the main source of economic activity in Nantucket Sound) the project may eventually lead to many more economic problems such as the increase of unemployment rate (Saveoursound.org, 2015).

### 2) The "Political Debate":

Another critical aspect in understanding the Cape Wind Project is the political platform. Depending on the outcomes of the state government elections in 2006 and 2012, the project has been suggested to then be decided by the people or party in power. Together with the multiple public opinions from the different group of stakeholders at the local, national and regional level, Democrats and Republicans affect the project with their own views and beliefs (Marita, 2015).

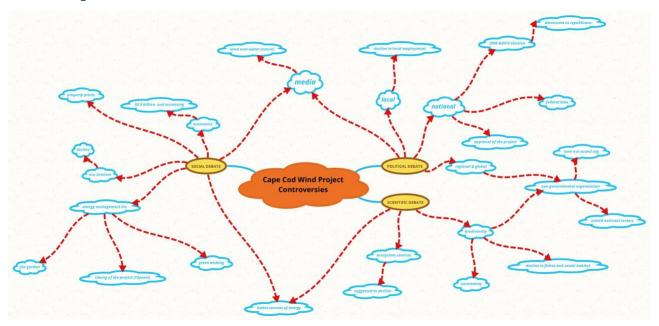
Many view the media outlets including books, movies, and public media as having contributed to this hype in the political arena. With its major goal in combining the social to political aspect, the movie "Wind Over Water" released in 2003 shed light on this issue to the national audience, with the movie revealing the debates for, against, positives and negatives of the turbines.

# 3) The "Scientific Debate":

Following the social aspect of the situation, the scientific debates with the social implications are bring together overwhelming numbers of stakeholders who opposed the project. The introduction of the scientific debate plays a role in leading the controversies. As the concerns were primarily based on the habitat and biodiversity livelihoods that could be affected by the creation of the turbines, local fish stocks and coastal marine ecosystems such birds habitat are the conflicts that emerge since the proposal (Ingoldsby, 2011).

Concluding the issue on the scientific debate, the involvement of non-governmental organizations are being drawn into the picture, as environmental organizations such as 350.org and "Save Our Sound" have taken opposing sides on the issue. The separation of the scientific debate from the political or stakeholder groupings help to map out the least biased information available.

# **Mind Map**



### **Governance Framework**

# 1) Global governance framework:

In terms of the governance framework, there is influence in decision-making at three levels of governance. These levels of course are the global, the federal/state level, and the non-statutory.



Figure 3: The United Nations framework convention on climate change. (West, 2011) Available at: https://www.myessentia.com/blog/canadian-government-grilled-on-lack-of-comprehensive-climate-change-policy/.

On the global scale, policy provides more guidance encouraging the adoption of wind energy. As Anker et al.(2009) notes, many of the international law surrounding wind energy is non-binding. This includes conventions like the United Nations Framework Convention on Climate Change (UNFCCC) that established an international agreement, in which participating nations would reduce greenhouse gas emissions by an average of 5.2% from 1990 levels by 2012 (Saidur et al., 2010). This agreement has seen a growing trend towards renewable energy. Yet, this agreement is only in place for those that choose to participate, thus lessening the influence of governance on the global scale. Anker et al. (2009) also note other international declarations such as the 1992 Rio Declaration on Environment and Development, and the 2002 Johannesburg Declaration on Sustainable Development that essentially outlines the need for a collective shift to sustainable energy sources. Thus, it can be inferred that the international audience support offshore wind farm projects like that of Cape Wind, yet have no real influence on the specific decision-making around the project.

# 2) National/state governance framework:

The US government also has influence in shaping the debate around the issue of Cape Wind and what stakeholders are involved since it created the National Environmental Policy Act (NEPA) in 1970, which required public involvement in the process of impact reviews into technological developments (Phadke, 2010). While not directly governing the issue, this widens the debate around Cape Wind and influences how it is governed and by whom. The governance of wind energy can also be seen as very complicated and unstructured on the national level. There are no specific frameworks for offshore wind developments so projects like Cape Wind must adhere to regulations and legislations that are focused on all kinds of offshore construction. At the federal level the leading regulatory agency are the Minerals Management Service's (MMS), Fish and Wildlife Service (FWS), and the National Marine Fisheries Services (NMFS). The MMS is responsible for establishing a 30-year lease term of the Nantucket Offshore land (Snyder & Kaiser, 2009) and the FWS and the NMFS collaboratively assess the project from an ecological impact standpoint through legislations such as the Endangered Species Act and the Marine Mammals Protection Act (Santora *et al.*, 2004). Cape Wind must also provide the Notice of Proposed Construction or Alteration to

the Federal Aviation Administration Authority, as well as a Permit to Establish and Operate a Fixed Aid-to-Navigation to the US Coast Guard authority (Santora *et al.*, 2004).

On the provincial level, the state of Massachusetts implements a renewable portfolio standard (RPS) (Menz & Vachon, 2006), whereby an electricity provider is required to increase the percentage of its electricity generating capacity that comes from renewable sources. This links to the case study of Cape Wind as it forces energy companies to invest in renewable energy, such as offshore wind power.

There is also an overlap in the governing structure between the state legislation and federal regulations. State agencies such as the Massachusetts Environmental Policy Office and Massachusetts Coastal Zone Management Agency require commercial companies to fill out Environmental impact Reports (Santora *et al.* 2009), which regulate the same environmental concerns as are required by the federal agencies.

Also on the provincial level the Massachusetts government created the Massachusetts Ocean Management Plan (MOMP) in 2009, which served as a way of protecting state ocean waters and encouraging sustainable use (Massachusetts Government, 2015). This legislation set the standard for new developments in state waters such as Cape Wind, thus increasing the role of the environment in the Cape Wind debate.

# 3) Non-statutory level:

On the non-statutory level, the most heated dispute over Cape Wind occurs. This is between the Cape Wind initiative itself, led by its president Jim Gordon that pushes for the development to go ahead (Cape Wind, no date) and an opposition group to Cape Wind called the Alliance to Protect Nantucket Sound. The Alliance exercises their governance by pointing out the unquantifiable regulatory elements of wind turbines, including visual impacts and hiked electricity prices. This debate isn't so simple as well as there are hidden motives by private stakeholders. Reports have revealed that 94% of funding of the Alliance to Protect Nantucket Sound came directly from wealthy seasonal residents, indicating their desire in protecting land value through narratives of migratory bird protection (Rodgers & Olmsted, 2008).

Overall, the overlapping nature of governance around this issue leads to a very fragmented and dysfunctional development process. The fact that the phenomenon of offshore wind farms is a relatively new one means there is a certain amount of inexperience in governing such a project leading to conflicting views and regulations, thus leading to a lack of construction for Cape Wind.

# **Moving Forward**

Although the project has been publically observed as discontinued after Utilities National Grid and NSTAR terminated its contract to buy Cape Wind's energy in January of 2015, at this point in time, the Cape Wind Project is still active. Cape Wind has "received two-year extensions from both the Massachusetts Energy Siting Board, as well as the Independent System Operator of New England" (Del Franco, 2015) as well as suspending its federal lease with the Bureau of Ocean Energy Management for two years in the hope of re-starting its operations. Thus, taking into consideration of our analysis of the current governance framework, we propose a two year policy alternatives in managing the wind resources of Cape Cod. The main management problem can be separated into three themes. The

unsettled local debate, overlapping legal governance structure, and potential environmental harm. These issues would be tackled in the following manners outlined below.

## 1) Local debate:

A key issue is the local economy at Nantucket Sound. Generally, wind turbines lower the value of houses in that specific area and reduces tourism in that area (Bowen, A) so residents are generally in favor of opposing the project for Cape Wind. A potential solution for this predicament would be to convince the residents that the wind power generated would significantly benefit the local economy in Nantucket Sound through means of a local discussion where Cape Wind investors explain the economic benefits of having wind power such as sustainable job creation that comes with implementing wind turbines, and subsidized marine livelihood practices (Kennedy, 2005, 3).

Groups in Nantucket Sound which prioritize cultural traditions like the Wampanoag tribe would also affect the production of wind turbines because of the tribe's opposing ideals and values from the project investors of Cape Wind. Because of this disagreement a lawsuit against the Cape Wind project was filed by the Wampanoag tribe which was also due to the fact that Cape Wind was going to charge three times the price of competing out-of-state green energy companies. A potential solution to this predicament is for Cape Wind to compete and offer competitive prices for the energy provided which rival or outdo other green energy companies because if they don't then the residents of Cape Cod will oppose the project entirely.

# 2) Governance bureaucracy: Federal governance

As outlined in the governance framework above, the inexperience of the federal and state governments in pertaining to renewable energy source management has hindered progress on the Cape Wind Project. Given our two year suspended period before resuming operation, a proposal will be made to the federal level of governance to oversee all renewable energy project at the federal level under one newly established Act. Although incentivized programs such as the Renewable Portfolio Standard allow states to "to sell or trade the energy credit to other jurisdictions" (Moosa, 2015 p. 723) if they produce a quota of renewable energy, this is insufficient in swiftly carrying out renewable energy project with the current bureaucratic system in place.

First, in order to eliminate the inefficiency in overlap of similar regulations such as the Endangered Species Act and the Marine Mammals Protection Act present in federal and state levels, the federal government must be given jurisdiction to overrule similar state level act such as the Massachusetts Environmental Policy Office Massachusetts Environmental Policy Office and Massachusetts Coastal Zone Management Agency that require commercial companies to fill out Environmental impact Reports (Santora et al. 2009, p 149). By concentrating the authority to the federal level, companies would not be required to file multiple and often time-consuming reports. Concurrently, this maneuver will prohibit states to refuse renewable energy transaction for political objectives as seen in the Cape Wind Project during the 2006 governor election where <a href="Democrate">Democrate</a> candidate <a href="Deval Patrick">Deval Patrick</a>, supported the project and his <a href="Republican">Republican</a> opponent, former Lieutenant Governor <a href="Kerry Healey">Kerry Healey</a>, opposed it (Williams & Whitcomb, 2008 p. 387).

Second, all agencies responsible of each act must be housed under this proposed federal Act. For example, there are other minor yet critical federal legislations that Cape Wind must conform to such as providing the Notice of Proposed Construction or Alteration to the Federal Aviation Administration Authority, as well as a Permit to Establish and Operate a Fixed Aid-

to-Navigation to the US Coast Guard authority (Santora et al., 2009, p. 146). These agencies operate on their own individual timeline. However, by curating these agencies under one umbrella Act specific to offshore wind farms, the timeline to abide by these specific permits and approvals would be reasonable and straightforward for the company applying for them. In the case of Cape Wind, Cape Wind will no longer have to wait for these specific permits to be issued before submitting itself to another approval process. These two actions must be taken in order for the renewable energy industry, especially offshore wind farms, to develop in the United States coastal states together with president Obama's push for American Reinvestment and Recovery Act (ARRA) 2009 that introduced tax breaks for renewable energy companies.

### 3) Environment:

When looking at the case of environmental factors on Cape Wind we see it would be a threat to the endangered right whales, sharks, and other marine life in Nantucket Sound (Solomons, 2014). Protecting the habitat area of these mammals is crucial but could likely be achieved if the scale of Cape Wind was slightly reduced or the turbines were put into areas, which have little impact on the endangered species. As potential impacts described by researches on the global trends of wind farms has suggested that there have been a decline in biodiversity loss such that it can be categorized into direct and indirect impacts in species towards the environment as well as the ecosystem services as a whole. (Saidur et al., 2011) Thus being brought into the attention of the local stakeholders, environment programs set up by the 'saveoursound org. and the 350.org have been closely monitoring the situation and treats that would possibly happen.

# Conclusion

As examined in the above three categories, the challenges facing Cape Wind is unique compared to other forms of energy. The energy is currently not being depleted, there are no imminent nor observable negative environmental impact. The problem lies in the local debate as well as government inexperience in management. In order to solve these issues, we proposed a two year plan in which Cape Wind will then be able to resume construction. In the local debate arena, incentivized programs similar to those given to renewable energy companies like Cape Wind will be granted to local residents for positive economic output and to tackle the NIMBY effect. In the case of legal governance, a single federal level Act would house all agencies, federal and state, to make all operations pertaining to wind farm development swift and simple. Together with environmental assessments conducted would be instrumental in pioneering the growth of wind farms across coastal United States not to mention Cape Wind itself.

# References

## **Peer Reviewed Journal Articles**

Anker, H., Olsen, B., & Rønne, A. (2009). Wind Energy and the Law: A Comparative Analysis. *Journal of Energy & Natural Resources Law, 27*(2), 145-178. doi:10.1080/02646811.2009.1143521

Bowen, A., Fankhauser, S., & Bassi, S. (2012). The Case for and Against Wind Energy Retrieved November 28, 2015 from <a href="http://www.lse.ac.uk/GranthamInstitute/wp-content/uploads/2014/03/PB-onshore-wind-energy-UK.pdf">http://www.lse.ac.uk/GranthamInstitute/wp-content/uploads/2014/03/PB-onshore-wind-energy-UK.pdf</a>

In this article Bowen, Fankhauser and Bassi show the main causes of concern against wind energy as well as environmental impacts by onshore wind turbines. The authors give an approximate cost to create and maintain onshore wind energy. The article shows how offshore wind farms are expected to become more prevalent in the coming years. They explain the benefits and cons of wind energy with comparisons to other sources of energy and which would be better overall. Which allows for some comparisons on how Cape Wind would maintain their turbines and what sort of economic benefits it would provide.

Ingoldsby, J. (2011). SUSTAINABLE SOLUTIONS FOR BIODIVERSITY LOSS ON CAPE COD. Retrieved 23 Nov, 2015, from <a href="http://josephemmanuelingoldsby.com/ibcc.pdf">http://josephemmanuelingoldsby.com/ibcc.pdf</a>:

This study is based on the many sustainable solutions recommended for Cape Cod. With the author suggesting that a feared biodiversity loss that the turbines would poses to the Cape's ecosystem could be solved through a sustainable solutions. As one of the examples suggested on the Herring River System where some of the suggested reformation would be through "Reestablishment of the physical connection with the marine environment for exchange of sediment, nutrients, organic matter, and biota." as this study would reflect a similar situation on 'Cape Cod'

McNamara, E. (2015, January 30). What really toppled Cape Wind's plans for Nantucket Sound The Boston Globe. Retrieved November 25, 2015, from <a href="https://www.bostonglobe.com/magazine/2015/01/30/what-really-toppled-cape-wind-plans-for-nantucket-sound/mGJnw0PbCdfzZHtlTxq1aN/story.html">https://www.bostonglobe.com/magazine/2015/01/30/what-really-toppled-cape-wind-plans-for-nantucket-sound/mGJnw0PbCdfzZHtlTxq1aN/story.html</a>

In this article McNamara explains the reasons why Cape Wind was a failed project. The author pointed towards the associates and investors for the failed project since they were heavily blaming each other for any delays or failures presented throughout the 14 years of its potential building. McNamara also showed how the investors lack of support or how they were unable to attain any support was a key reason why Cape Wind was never able to proceed accordingly. In the article it was shown that the developers showed potential prospect of good manufacturing jobs but then went to the German company Siemens to buy the turbines and the offshore transformer and to contract for maintenance services.

Menz, F. C., & Vachon, S. (2006). The effectiveness of different policy regimes for promoting wind power: Experiences from the states. *Energy Policy*, *34*(14), 1786–1796. <a href="http://doi.org/10.1016/j.enpol.2004.12.018">http://doi.org/10.1016/j.enpol.2004.12.018</a>

This is another peer-reviewed article which conducts a study into policies of states in the US on wind energy. The aim of the study is to determine the role of these states in promoting wind power and whether particular policies have greater impact in promoting wind power than others. The paper finds that it isn't only a state's natural endowment in wind resources that plays a role but also the particular policies the state implicates. They find that renewable portfolio standard (RPS) policy is the most effective. This is where the state gradually increases the requirement of an electricity provider's energy output to come from renewable sources. This is useful as it directly applies to how wind energy has come about and may be further encourage in our research state of Massachusetts. It highlights the importance of the roles of different stakeholders in the process and that there isn't one commanding force. Its methodology is appropriate as it takes into account 3 factors

surrounding wind energy in each state: wind development indices, policy regimes and wind technical potential. This means not all states are compared directly to each other as some have more potential for wind energy than others. However, only 39 states are sample, which is considered a small sample size, and the research was conducted from 1998-2003 so it is outdated and may not be applicable now. The article was published in the journal Energy Policy which is a topic very relevant to the research, making it more reliable. It is also well referenced and contains original data that is published to back up the arguments made, thus providing solid evidence making it believable. The article is peer-reviewed so has gone through the rigorous assessment process before being published.

Moosa, L. (2015). "The energy capital of the East Coast"? Lessons Virginia can learn from Cape Wind failure and European success in offshore wind energy. William and Mary Environmental Law and Policy Review, 39(3), 713-737. Retrieved October 10, 2015, from HeinOnline.

Moosa's peer-reviewed comparative policy prescription article examines the dichotomy of the Cape Wind project's failure and the European success cases in wind farms to prescribe policy recommendations in developing the first North American offshore wind farm in Virginia, U.S. The article studies a range of sources from local newspaper articles to federal government policies to thoroughly break down and reveal the overlapping structure of governance that led to the failure of Cape Wind; For example, the fact that the "CZMA (Coastal Zone Management Act) does not provide concrete guidelines and lacks strict federal oversight and enforcement" (Moosa, 2015, p. 721). The first half of the article would be investigated for this research to examine the bureaucratic policy failures of the Cape Wind Project. The strength of the article is its critical approach towards the systems and laws of establishing the wind farms and its recent publication date.

Noon, Marita. (2015) "Wind Energy Dead in the Water Off Cape Cod." *Breitbart*. Breitbart, Retrieved November 22, 2015 from <a href="http://www.breitbart.com/big-government/2015/01/12/wind-energy-dead-in-the-water-off-cape-cod/">http://www.breitbart.com/big-government/2015/01/12/wind-energy-dead-in-the-water-off-cape-cod/</a>>.

Phadke, R. (2010). Steel forests or smoke stacks: The politics of visualisation in the cape wind controversy. *Environmental Politics*, *19*(1), 1–20. http://doi.org/10.1080/09644010903396051

Phadke's peer-reviewed article examines the Cape Wind project as a case study of the use of visual imagery in shaping the local political debate. The author argues that "there has been a striking lack of attention to the visual realm as a site of political claims making" (Phadke, 2010, p.16) and that "visual simulations encode social and cultural values" (Phadke, 2010, 17). The article examines the environmental impact assessment of Cape Cod, national, regional and local media coverage, documents of websites of supporters and opposers, and interviews with the staff of Cape Wind. The article will be adopted in the research to examine the social and cultural values that govern stakeholders including local residents and their representative politicians that is revealed through visual simulation. The strength of the article lies in its effort and ability to decode subjective cultural values specific to the region.

Rodgers, M., & Olmsted, C. (2008). The Cape Wind Project in Context. *Leadership Manage. Eng. Leadership and Management in Engineering, 8*(3), 102-112. Retrieved October 10, 2015, from Leadership and Management in Engineering.

This article gives a good overview of the whole Cape Wind Project and how it links into both the state of Massachusetts energy aims and the goals of the international community in their fight against climate change. as it is an overview there is no specific aspect it focuses on so would not be useful for deep analysis over a specific topic or issue, but its use comes through providing background information, thus providing a platform to structure the problem and encourage areas of further research.

Saidur, R., Islam, M. R., Rahim, N. A., & Solangi, K. H. (2010). A review on global wind energy policy. *Renewable and Sustainable Energy Reviews*, *14*(7), 1744–1762. <a href="http://doi.org/10.1016/j.rser.2010.03.007">http://doi.org/10.1016/j.rser.2010.03.007</a>

This example is a more general perspective of wind farms globally. As this sources provide a base ideas of the common trends that has or is occurring around the world. Primarily focusing on the biodiversity aspects, the impacts on wildlife that this paper prompted is about the pros and cons of wind turbines have on its ecosystem.

Santora, C., Hade, N., & Odell, J. (2004). Managing offshore wind developments in the United States: Legal, environmental and social considerations using a case study in Nantucket Sound. *Ocean & Coastal Management*, *47*(3-4), 141-164. doi:10.1016/j.ocecoaman.2004.03.006

Snyder, B., & Kaiser, M. (2009). Offshore wind power in the US: Regulatory issues and models for regulation. *Energy Policy*, *37*(11), 4442-4453. doi:10.1016/j.enpol.2009.05.064

Presenting their data with a very generalize method where the data set includes factors that could affect the biodiversity and ecosystem of the area within a given radius of the site. The authors Brian Snyder, and Mark J. Kaiser are assessing the impacts that wind turbines are impacting their surrounding biodiversity.

### **Government Documentation**

Massachusetts Government. (2015, October 26). Massachusetts ocean plan. Retrieved 4 November 2015, from <a href="http://www.mass.gov/eea/waste-mgnt-recycling/coasts-and-oceans/mass-ocean-plan/">http://www.mass.gov/eea/waste-mgnt-recycling/coasts-and-oceans/mass-ocean-plan/</a>

This is a fact sheet produced by the Massachusetts state government. It outlines the aims of the state, such as reducing greenhouse gas emissions by 12% and meeting 10% of its electricity needs with clean, renewable energy. It then provides figures on how wind energy can help achieve this. For example, meeting the Governor's wind goal of 2,000MW by 2020. It is a useful document as it helps to understand the viewpoint of the government surrounding Cape Wind and their aims for the project. It is a government document so can be considered reasonably reliable, as we'd assume the information given is in the state interest. The government aims to promote wind energy however, so the statistics given might be aimed towards achieving this goal, thus suggesting bias. It is structured as a sort of FAQ and so it addresses possible issues that people may have, before they have them, by providing statistics, again suggesting a persuasive motive to the document. Sometimes the data provided could be very speculative as well. For example in answer to one of the hypothetical questions 'aren't wind turbines ugly?' the document refers to polls that say 'a lot' of people don't think they are ugly. This doesn't provide any factual basis for the answer.

# **Popular Media**

Del Franco, M. (2015, October 1). Not Dead Yet: Cape Wind Refutes Claims Of Its Demise. Retrieved November 23, 2015,

from http://www.nawindpower.com/e107\_plugins/content/content.php?content.14675

Solomons, MD (2014). Assessing impacts of offshore wind farms on marine species. Retrieved, November 28, 2015 from <a href="http://www.umces.edu/cbl/release/2014/oct/13/assess-impacts-offshore-wind-farms-marine-specie">http://www.umces.edu/cbl/release/2014/oct/13/assess-impacts-offshore-wind-farms-marine-specie</a>

Solomon's journal entry shows the potential impacts of having offshore wind farms, which bring about definitive reasons to have them as well as more cautious approaches to be weary of them. In general, the author shows a correlation to Cape Wind's way of producing energy, which can be helpful in assessing possible future problems that could occur with Cape Wind. As well as potential solutions to problems of the same caliber issued in other areas.

West, A. (2011, June 11). Canada gets an earful at climate change conference. Retrieved December 1, 2015, from <a href="https://www.myessentia.com/blog/canadian-government-grilled-on-lack-of-comprehensive-climate-change-policy/">https://www.myessentia.com/blog/canadian-government-grilled-on-lack-of-comprehensive-climate-change-policy/</a>.

Williams, W., & Whitcomb, R. (2008). 7. In Cape Wind: Money, celebrity, class, politics, and the battle for our energy future (ReadHowYouWant ed.). S.I.: Accessible Pub.

Williams and Whitcombs' popular media article gives a summary of the behind the scenes scenario of the Cape Wind controversy with a centered focus on the political debate. Given its time published (2008), the analysis is time sensitive in that it summarizes the events of Cape Wind with the optimistic assumption that the project is still underway. This source was valuable in grasping the overarching stakeholder relations of the political arena in the Cape Wind controversy.

# **Grey Literature**

Cape Wind. (no date). Cape wind project overview & benefits. Retrieved 4 November 2015, from http://www.capewind.org/what

This is an online article that sets out why Nantucket Sound is a perfect location for a wind farm to be built and wind energy to be produced. The article lists factors such as a good average wind speed, a high potential energy capacity, the avoidance of shipping and flight paths and ideal ground for turbine installation to prove the suitability of the area. It is useful because it shows the benefits that the natural landscape provides for a wind farm and explains why this site has been chosen for Cape Wind above other sites. The details given are also very specific to the site of research so are entirely relatable with no generalized facts or information that need to be applied to the site. The article isn't wholly reliable as it is produced by Cape Wind – the organization behind the development in Cape Cod. This means it could be bias in order to suit their agenda. For example, it lists all the reasons why it should be at this site but no reasons why it shouldn't (of which there are many). It does, however, improve its credibility slightly by referring to independent technical experts and academics who have backed up the argument for turbines to be built at Nantucket Sound. There is no date provided as to when the page was published/updated so we can only assume it is recent as the issue is currently being outplayed.

# **Multimedia:**

Wind over Water. (2003). Retrieved November 26, 2015, from http://www.concordmedia.org.uk/products/wind-over-water-3001/

(n.d.). Retrieved November 26, 2015, from http://i2.cdn.turner.com/cnn/2010/images/04/20/stacks.cape.wind.jpg

Gallucci, M. (2014, July 2). Cape Cod Offshore Wind Farm: Feds Bet That It Will Finally Get Built With \$150M Loan Guarantee. Retrieved November 29, 2015, from http://www.ibtimes.com/cape-cod-offshore-wind-farm-feds-bet-it-will-finally-get-built-150m-loan-guarantee-1617690



# **Site Registration**

If you want to add yourself to this blog, please log in.

The Department of Geography - Environment and Sustainability Program Vancouver Campus

1984 West Mall Vancouver, BC Canada V6T 1Z2 Tel 604 822 2663 Website www.geog.ubc.ca/