



TOWN COUNCIL – AGENDA REQUEST FORM

THIS FORM WILL BECOME PART OF THE BACKGROUND INFORMATION USED BY THE COUNCIL AND PUBLIC

Please submit Agenda Request Form, **including back up information**, 8 days prior to the requested meeting date. **Public Hearing requests must be submitted 20 days prior to the requested meeting date to meet publication deadlines** (exceptions may be authorized by the Town Manager, Chairman/Vice Chair).

MEETING INFORMATION

Date Submitted: Mon, Nov. 20, 2027 Date of Meeting: Thursday, Dec. 21, 2017
Submitted by: Mary Beth Raven Time Required: 15 minutes (or less)
Department: Not applicable Background Info. Supplied: Yes No
Speakers: Mary Beth Raven, resident

CATEGORY OF BUSINESS (PLEASE PLACE AN "X" IN THE APPROPRIATE BOX)

Appointment:	<input type="checkbox"/>	Recognition/Resignation/Retirement:	<input type="checkbox"/>
Public Hearing:	<input type="checkbox"/>	Old Business:	<input type="checkbox"/>
New Business:	<input checked="" type="checkbox"/>	Consent Agenda:	<input type="checkbox"/>
Nonpublic:	<input type="checkbox"/>	Other:	<input type="checkbox"/>

TITLE OF ITEM

Warrant article to study the feasibility of developing offshore wind power.

DESCRIPTION OF ITEM

I respectfully request that the town council consider putting a warrant article on the ballot for spring of 2018. A potential draft of the article is as follows:

“Shall the Town of Merrimack express its support for NH to join existing efforts in Massachusetts and Maine to study the feasibility of developing offshore wind power in the Gulf of Maine, by providing written notice urging Governor Sununu to request the formation of an intergovernmental task force. A bipartisan NH legislative committee studied offshore wind in 2014 and recommended the establishment of the task force. Floating wind turbines located far offshore in federal waters and barely visible from land, combined with other renewable energy sources, would move NH to 100% renewable energy by 2050. The building of offshore wind farms would also bring significant jobs and income to NH.”

How would this benefit Merrimack?

Today, the state of NH uses several energy sources to generate electricity. Natural gas is used to generate 50% of the state’s electricity. We need to diversify; we should not rely so much on one source. In addition, diversification would mean less demand for natural gas and natural gas pipelines. So offshore wind decreases the likelihood of Kinder Morgan or other pipeline companies from building pipelines through our town.

Electricity from offshore wind is cleaner than that from natural gas, coal, or biofuels. Merrimack’s air would be cleaner.

I have also attached the following supporting materials:

The 2014 legislative report

N FAX on Offshore wind in New England

REFERENCE (IF KNOWN)

RSA: Warrant Article:
Charter Article: Town Meeting:
Other: N/A:

EQUIPMENT REQUIRED (PLEASE PLACE AN "X" IN THE APPROPRIATE BOX)

Projector:	X <input type="checkbox"/>	Grant Requirements:	<input type="checkbox"/>
Easel:	<input type="checkbox"/>	Joint Meeting:	<input type="checkbox"/>
Special Seating:	<input type="checkbox"/>	Other:	<input type="checkbox"/>
Laptop:	X <input type="checkbox"/>	None:	<input type="checkbox"/>

CONTACT INFORMATION

Name: **Mary Beth Raven** Address: **9 Four Winds Rd,
Merrimack**
Phone Number: **603-429-0619** Email Address: **Marybeth.raven@gmail.com**

APPROVAL

Town Manager: Yes No Chair/Vice Chair: Yes No

Hold for Meeting Date:

Why Merrimack Should Ask the Governor for an Offshore Wind Task force

Mary Beth Raven, Merrimack Resident

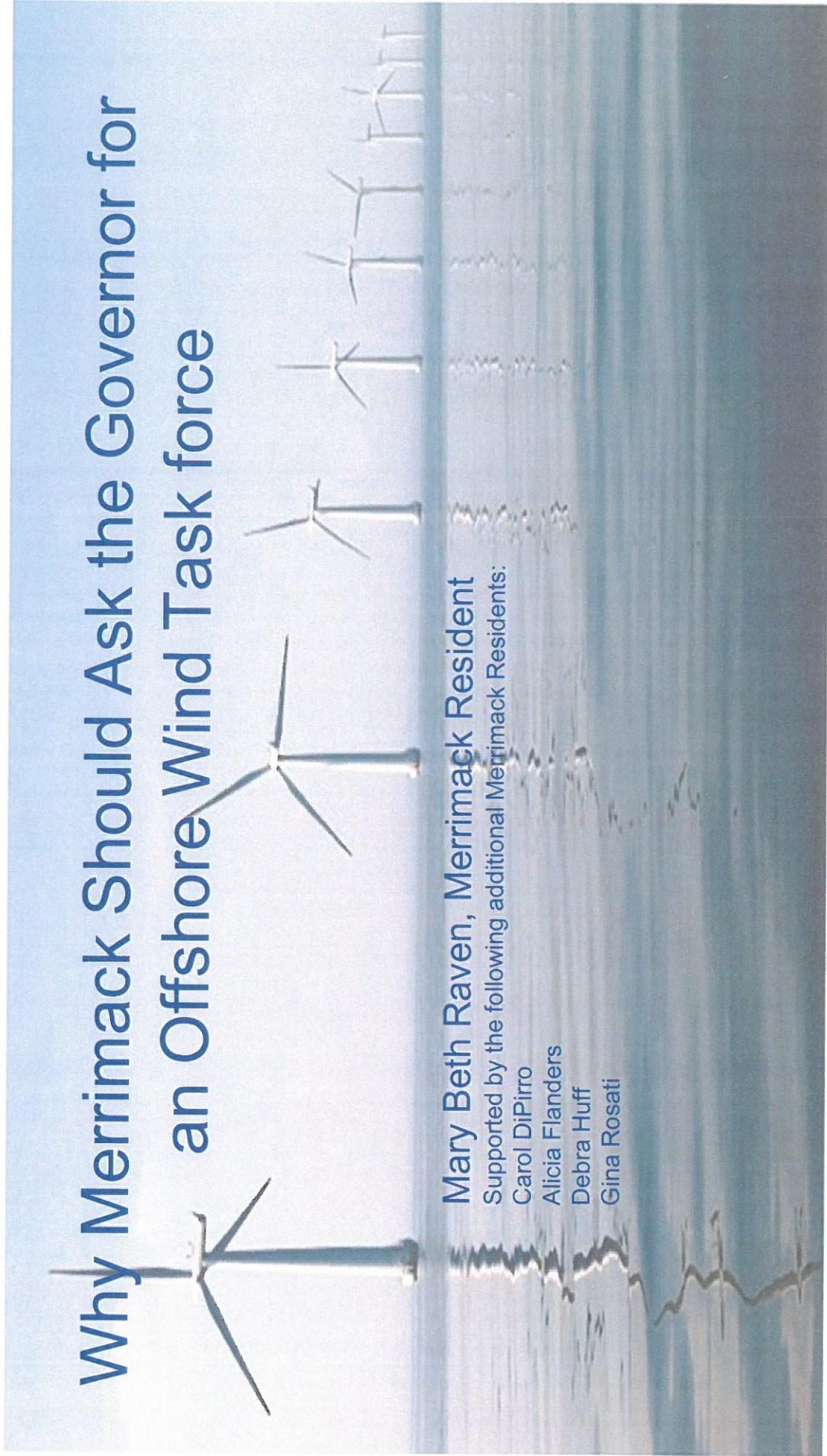
Supported by the following additional Merrimack Residents:

Carol DiPirro

Alicia Flanders

Debra Huff

Gina Rosati





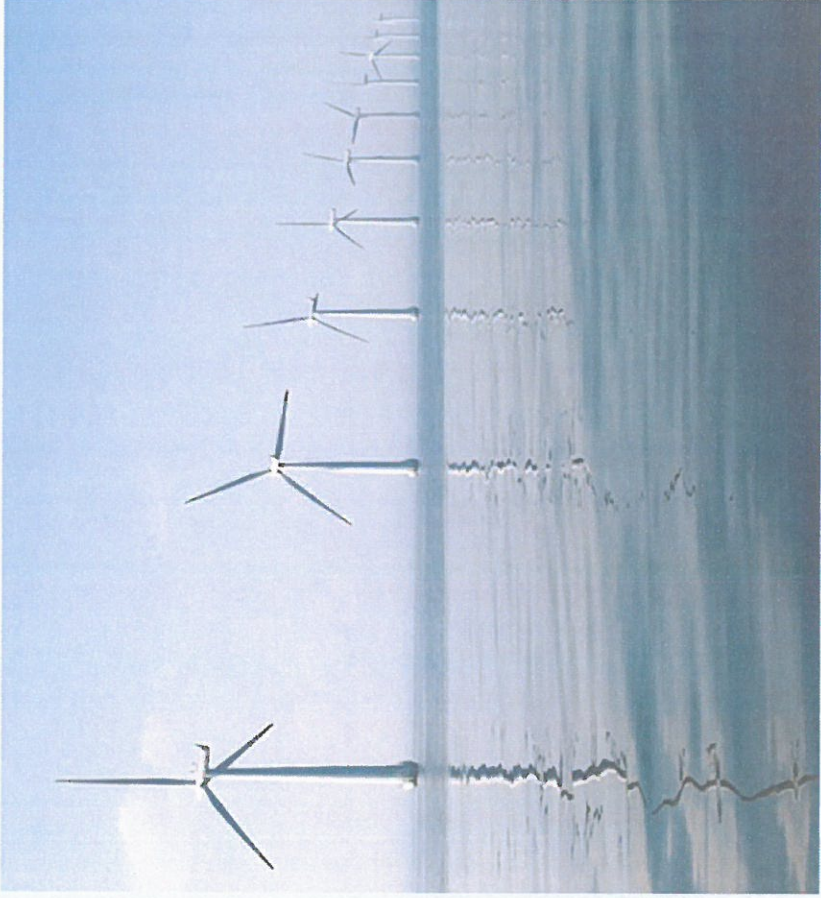
Offshore wind has been identified by a legislative study committee as one of the best options for renewable energy in NH.

**Report of the
Committee to Study Offshore Wind Energy and the
Development of Other Ocean Power Technology**

HB 1312 (Chapter 180, Laws of 2014)

Membership

Representative Robert Cushing, Chair	Senator Martha Fuller Clark
Representative Herbert Vadney	Senator Jeff Woodburn
Representative David Borden	Senator Russell Prescott



The coastal wind of NH provides capacity to produce ~2600 Megawatts of energy that could provide almost all of NH with electricity!

Source: National Renewable Energy Laboratory- “Assessment of Offshore Wind Energy Resources for the United States”

Source: https://www1.maine.gov/dacf/mcp/%20downloads/finalreport_123109.pdf

To bring offshore wind to New Hampshire Governor Sununu must request a task force from the Bureau of Ocean Energy Management. This task force will

1. Study the feasibility of offshore wind in New Hampshire
2. Talk to stakeholders
3. Start the leasing process for the area where the wind turbines will go
4. Be staffed partly with NH residents (legislators, PUC, SEC, or other people). This is the only cost to NH



“If folks want to bring it up [offshore wind] and they want to try to make that case in NH, I’m not opposing it.”

Source: NHPR- Governor Chris Sununu on “The Exchange”

If we can show governor Sununu there is community support for offshore wind then he will request the task force.

A passed warrant article will demonstrate community support.

Why Would Merrimack Want Offshore Wind?

1. Local Jobs and economic benefit
2. The ability to rely on LOCAL power
3. Technology has advanced and costs of generating electricity from wind have declined

1. Local Jobs and Economic Benefit

- Thousands of LOCAL jobs will be created
- Potential for 15 Billion increase to coastal economies

2. Local Energy

- 60% of electricity in NH is generated from natural gas that comes from out of state. This results in billions of dollars leaving the state
- Other projects like Northern Pass are still coming to us from out of the country
- Offshore wind turbines would be 12 Miles off the coast – much closer than hydro from Canada, natural gas from Pennsylvania, or oil from Latin America (yet almost out of sight!)

3. Technology Improved, Costs Declined

- The technology used to generate electricity from wind has advanced significantly
- Costs have also declined, making wind much more competitive with other methods of generating electricity.
- Commercial wind farms on land in the USA are successful, generating over 4% of all the electricity in the nation in 2013; Iowa and South Dakota generate 25% of their electricity with wind.
- The USA's first offshore wind farm near Block Island is a success
- Many European countries have offshore wind farms (UK, Netherlands, Denmark, Belgium, Germany, France, Poland)
- Asian countries are investing in offshore wind as well (China, Japan, South Korea, Australia)

What other NH Cities and Towns are Doing

The following cities have already signed resolutions:

- **Dover**
- **Durham**
- **Portsmouth**

- **Newcastle has a vote for offshore wind support on their agenda for town meeting in May**

Towns considering resolutions or warrants:

- **Exeter**
- **Lee**
- **Marlborough**
- **Nottingham**
- **Rindge**
- **Rye**

Please consider a warrant on the ballot so that the Governor can have confidence that Merrimack clearly does (or does not) support studying offshore wind

By petition of 25 or more eligible voters of town of MERRIMACK to see if the town will urge:

NH to join existing efforts in Massachusetts and Maine to study the feasibility of developing offshore wind power in the Gulf of Maine, by providing written notice urging Governor Sununu to request the formation of an intergovernmental task force.

o A bipartisan NH legislative committee studied offshore wind in 2014 and recommended the establishment of the task force.

o Floating wind turbines located far offshore in federal waters and barely visible from land, combined with other renewable energy sources, would move NH to 100% renewable energy by 2050.

o The building of offshore wind farms would also bring significant jobs and income to NH.

Backup Slides

Why Doesn't the Governor just Ask for the task force?

- He needs to know the voters are behind him on this.
- Chris Sununu wants to get re-elected, to do that he needs votes... and money
 - He publicly accepted \$34,000 from Eversource (Fossil fuel provider) and its execs in 2016. Perhaps he risks losing their contribution for any future campaigns
- We need to show the governor that there is strong public support for offshore wind



An offshore wind provider
- without any government
subsidies -
outbid a fracked gas
facility.

Source: New York Times- “Germany Strikes Offshore Wind Deals; Subsidy Not Included”

Why does the government need to get involved

- Two word answer: Cape Wind.

The name of the BOEM offshore leasing process is "Smart from the Start" - in other words, Cape Wind foundered on the inability to reconcile private interests (mainly rich/selfish folks on the Cape) with a private development project that had gotten all the necessary permits from the feds, but not the good will of all sectors of the public. Hence their subsequent requirement to get the approval of state and local government folks, by way of a task force/stakeholder process. I'm sure it's still an imperfect process, but better than "dog-eat-dog."

And from a more pragmatic/business point of view, NO developer (especially after the Cape Wind debacle) is going to want to sink many \$millions into a offshore project without first getting the support of all levels of government and most of the people potentially affected.

"Those who cannot remember the past are condemned to repeat it" - Santayana

Renewable Wind Mitigates Climate Change



- Property damage in New Hampshire due to climate change could be as high as \$4.4 billion dollars
- New Hampshire will see a loss of 2600 acres of land, 25 miles of road and 33 critical municipal facilities due to sea level rise
- An increase of extreme heat and wetter springs pose a threat to farmers

Source: NH Coastal Risks and Hazards Commission- “Preparing NH for Expected Storm Surge, Sea Level Rise, and Extreme Precipitation”



Frequently Asked Questions About Offshore Wind

How much energy will the wind turbines generate?

- Wind farms in the Gulf of Maine could provide renewable energy exceeding New England's current energy needs.
- The federal Department of Energy has determined that the Gulf of Maine could produce up to 200,000 megawatts of power, exceeding our current electricity needs throughout New England. - U.S. DOE 2010
- Wind farms will provide thousands of megawatts of safe, renewable power for region for decades to come.

Will offshore wind turbines ruin coastal views?

The wind turbines will be quite far offshore, barely visible on the horizon from coastal areas.

How tall are the wind turbines?

Wind turbines are generally 400-500 feet, though the largest one now 9 MW and 700 feet tall! Even though they are very large, they will be barely visible from shore.

How do wind turbines work?

The wind turns the blades (many design variations) around a rotor which is connected to the main shaft. It spins a generator to create electricity. There are many diagrams and videos online about how turbines work, including at energy.gov and boem.gov.

Are wind turbines safe? What if there's a severe storm?

Wind turbines are considered quite safe. The turbines are on floating platforms that are anchored to moorings. They are designed to withstand waves, severe storms, hurricane-force winds and even ice flows. They have lightning protection systems and are equipped with navigation and aviation warning lights.

What is the lifetime of a wind turbine?

Estimates vary, but 20-25 years is the accepted range.



How does the wind energy get from the ocean to the electrical grid?

The turbine is connected to the grid by a power cable buried beneath the seabed (away from anchors and fishing gear). The power is transmitted to an onshore power station that is integrated into the grid.

Will the turbines do damage to the ocean floor?

When constructed with careful planning, they are considered to be of minimal impact, but more studies are being done as more wind farms come online.

Will the turbines restrict fishing?

Commercial fishing crews are working with researchers at the new Block Island Wind Farm in Rhode Island to study the impacts on fishing. Some initial data is interesting, such as the fact that there can be different species of fish located under different towers. Those in the fishing industry of RI seem pleased that some of their own are working directly with researchers.

Will turbines disrupt marine life?

- *Floating turbine platforms are anchored to the bottom and function as an artificial reef, often increasing shellfish and other animals who feed on them.*
- *Turbine platforms will be floating and anchored to the bottom. They are*
- *The National Wildlife Federation states that when wind is located, constructed and operated without threatening coastal and marine life, no significant long-term impacts.*

Will they disrupt whale or bird migration?

Offshore wind's potential to reduce air and water pollution have the potential to make the natural world a cleaner, safer place for wildlife. After the construction period, the impact to animals is expected to be minimal and that wildlife will adjust by swimming around the platforms. Construction guidelines have been developed to protect wildlife.

What are the benefits to having our electricity come from offshore wind?

- Energy from wind is safe, clean and renewable.
- Wind farms offer reliable energy are modular, low-maintenance, and they don't create toxic or radioactive waste.

Are there other wind projects like this?

Yes! There are successful offshore wind farms all over the world. In 2016, America's first offshore wind project, The Block Island Wind Farm, was completed in Rhode Island. Many more are expected to be up and running within the next decade! We could be next!

Where can I learn even more about the benefits of offshore wind?

Visit the Bureau of Ocean Energy Management's website at boem.gov/offshore-wind-energy

Where are the wind turbines built? How long will it take?

Local wind sites will lead to local production, especially floating systems that can be built at the shore. Once sited and permitted, construction can be done in a just a few seasons. The wind farm will provide an economic boost to regional businesses and maintenance jobs.

How can I help support offshore wind for New Hampshire?

- *Talk about offshore wind! Many Granite Staters are just learning about this great opportunity. When we talk about it with friends and colleagues, we help with the transition to 100% renewable energy.*
- *When large-scale infrastructure projects and fossil fuel expansion are suggested, bring up the potential in offshore wind as a clean, safe, renewable solution.*
- *Email your state representative and tell them the many advantages of offshore wind. Attach one of our downloadable brochures and refer them to one of our partner's websites to learn more. Ask your state representative to talk to the Governor and encourage requesting a federal task force to study offshore wind in the Gulf of Maine.*
- *Download and print some of our brochures and make them available at conferences, meetings, trainings and tabling events.*

How can I get involved with the campaign for offshore wind and participate in event?

Visit 350NH.org for more information about upcoming events.

Where can I learn more?

Facebook	NHoffshoreWind
Seacoast Anti-Pollution League	SALPNH.org/current-issues/renewable-energy-for-NH
National Wildlife Federation	http://nwf.org/What-We-Do/Energy-and-Climate/Renewable-Energy/Offshore-Wind.aspx
350 New Hampshire	350NH.org/wind
ECHO Action NH	ECHOaction.org/offshore-wind



**Report of the
Committee to Study Offshore Wind Energy and the
Development of Other Ocean Power Technology**

HB 1312 (Chapter 180, Laws of 2014)

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Representative Herbert Vadney	Senator Jeff Woodburn
Representative David Borden	Senator Russell Prescott

Summary

This Study Committee held seven meetings at which it heard numerous presentations from various experts in the field of offshore energy production.¹ The Committee wishes to thank these individuals for taking the time to come to Concord, oftentimes from out-of-state, to meet with us and share their knowledge. Many interested parties also attended these meetings, including those from state and federal agencies, businesses, academia, and environmental groups. One of the meetings was a public informational session and hearing held on the seacoast at the New Castle Public Library. About 20 members of the public attended.

After considering all of the information presented and the comments received from the public, the Committee has come to the following conclusions.

Key Findings

- The wind resource off of New Hampshire's coast has the potential to generate significant amounts of electricity, whereas tidal or wave energy do not.
- The best place to develop offshore wind power appears to be three or more miles beyond the Isles of Shoals due to the area's increased wind strength and consistency, reduced boat traffic congestion, and reduced onshore visual impact from the tall structures.
- However, this area has waters that are too deep for conventional foundation attachments to the seabed, and so it is probable that floating platforms would

¹ See Attachment 1 for list of presenters.

need to be used. Each tower, turbine, and blade assembly would sit atop its own platform and be tethered in place to the seabed.

- Floating platforms are used extensively for oil and gas extraction, but are not yet a proven, cost-effective technology for wind generation. However, demonstration projects have already been deployed in ocean waters and more are to come.
- Offshore wind development has the potential to generate significant economic activity within Portsmouth Harbor, other coastal communities, and even communities farther inland. Even if the large components of the generation units are not manufactured or assembled here, there are extensive supply chain and service needs that New Hampshire businesses and workers could provide, including cabling, support services and vessels, substation and shore grid connections, engineering, environmental services, and the operation and maintenance of the wind farms over the long-term.
- The area 3 or more miles beyond the Isles of Shoals is in federal waters which the Bureau of Ocean Energy Management (BOEM) is responsible for leasing to developers. BOEM has a process called “Smart from the Start” to identify suitable areas where wind development would be compatible with existing uses and not harm the fisheries resource or other wildlife. It is a process that engages multiple stakeholders and is transparent in nature.
- The wind resources off the coasts of our neighboring states are much greater than ours due to their longer coastlines. It makes sense for New Hampshire to work cooperatively with Maine and Massachusetts in developing offshore wind as a regional resource. Connecting future wind farms built off the coasts of Maine, New Hampshire, Massachusetts, Rhode Island and perhaps even farther south with a common undersea transmission line that parallels the coast may prove to be the most efficient means of moving the power to where it is needed onshore.

Recommendations

- The Committee sees its work as just the beginning of a necessary long-term discussion on the development of wind power off the coast of New Hampshire. Even though there are many outstanding technical, logistical and economic issues concerning the viability of offshore wind generation, especially using floating platforms, the state should prepare itself to take part in the industry’s development if the opportunity arises and it is in our best interest.
- The Committee encourages the Governor to reach out to the Governors of Maine and Massachusetts in an effort to identify ways in which the states can work cooperatively in the development of offshore wind. The Committee also hopes

that the Governors can agree on a joint request to BOEM to form a multi-state task force and stakeholder process to plan for regional offshore wind and transmission line development. It is the Committee's understanding that a state's participation in such a BOEM sponsored process does not obligate the state to contribute any money towards such effort.

Background

The technology used to generate electricity from wind has advanced significantly over the past couple of decades. The turbines and rotors are much larger now and more efficient at converting wind energy into electricity. Costs have also declined making wind much more competitive with other methods of generating electricity. Hundreds of commercial wind farms have been constructed across the United States in the past decade such that wind produced 4% of all the electricity in the nation in 2013.

A wind farm requires a relatively large tract of land for its construction because it is composed of multiple tower, turbine, and blade assemblies that are erected a significant distance apart from each other. This combined with the fact that each structure is very large makes a wind farm a very noticeable feature on the landscape, which can limit where one can be acceptably sited. Another limitation on siting is that wind farms do best, of course, where the winds are strong and consistent. This is less of a consideration in some areas of the nation that are flat and windy by nature, such as the plains of the Midwest. However, in New Hampshire the wind blows best across the top of ridgelines, and constructing a wind farm there tends to make it more prominent.

Advantages and Challenges of Offshore Wind

Both of these potential issues (visual impact and limited areas of sufficient wind strength) are nicely addressed by the siting of wind farms many miles offshore. The winds are very strong and consistent there and the structures are barely if at all visible from land. An added advantage is that since the visual impact is less of a concern, the turbine and blade assemblies can be sized even larger and placed on taller towers. This allows them to capture more wind per unit and to take advantage of the even stronger winds found at higher elevations. As a result, more electricity can be generated per structure which lowers overall costs due to economies of scale.

Unfortunately, constructing wind farms offshore is a challenging and, at this point, costly endeavor. Towers must be attached to the seabed in waters depths up to 50 meters in depth. A specialized and extremely expensive vessel is needed to erect each

tower, place the main turbine body on the tower, and finally to attach the blades, all in an oftentimes harsh marine environment. In additions, there is no existing transmission infrastructure out at sea for a wind farm to “plug into”, so transmission lines must be laid and associated electrical components installed in order to bring the power from the offshore wind farm to land where it can be fed into the electrical grid.

Development of Offshore Wind

Despite these challenges, many countries in the world have moved forward in developing offshore wind farms. Presently, there are approximately 7 GW (7,000 MW) of offshore wind installed worldwide, with more projects in the pipeline. The majority of the installations are located in northwestern Europe. This has resulted in Europe becoming the world leader in this industry, with the necessary knowledge and experience, technologies, manufacturing and installation infrastructures, supply chains, and workforce skills to more efficiently plan and build offshore wind farms. China and Japan are poised to becoming major players in offshore development as well.

As of yet, no commercial-scale projects have been constructed in the United States, though there are two nearby New England projects that are considered to be in their initial phases of construction. The largest is the well publicized 468 MW Cape Wind project to be composed of 130 turbines and located within Nantucket Sound. First proposed in 2001, it has been controversial from the start and aggressively challenged in court and in the public arena by those opposed to where it is to be sited. The project owners have successfully persevered, though recently experienced a major and perhaps fatal setback when the two public utilities that were to purchase over three quarters of the project’s electrical output terminated their contracts with Cape Wind. If constructed, the project would provide about three quarters of the electricity needs of Cape Cod. The other nearby but much smaller project is the 30 MW Block Island Offshore Wind Farm composed of just 5 turbines. It will provide power to the island as well as the mainland through a bi-directional, buried cable. This project is targeted for completion in 2016.

The winds that blow in the Gulf of Maine off of New England’s coastline are very strong and have the potential to produce huge amounts of electricity (>150 GW). New Hampshire’s share of that is quite small due to its limited coastline. Nonetheless, it is estimated that up to 2.8 GW of generation capacity exists 3 or more miles off of our coast, seaward of the Isles of Shoals. For comparison purposes, Seabrook Station is a 1.2 GW facility that generates at 87% of its capacity on a yearly average, whereas the percentage for an offshore wind farm generally would be less than 50%.

Floating Platforms

Most of the area 3 or more miles off of our coast and seaward of the Isles of Shoals has waters too deep (>50m) for fixed seabed foundations. The alternative proposed for such deep waters is to affix the towers and turbines to floating platforms that would be held in place by tethers anchored to the seabed. Floating platforms are used extensively for oil and gas extraction, but are not yet a proven, cost-effective technology for wind generation. Demonstration projects consisting of single platform/turbine (2 MW) installations using different platform technologies have already been deployed off the coasts of Portugal, Japan and Norway, while groups of 2 to 6 floating platforms with larger turbines (5 to 7 MW) are planned in the next few years off the coasts of Oregon, Japan, and Scotland.

If these demonstration projects prove that floating platforms are a suitable technology for supporting wind turbines and a cost effective means of deploying them, then the deep water areas off the coast of New Hampshire and other parts of the Gulf of Maine can be utilized for power generation. One expected advantage that floating platforms will have over fixed seabed installations is that the platform, tower, turbine body, and blades can be assembled in the safe confines of a specialized port facility rather than at sea. Once assembled, the entire floating structure can simply be towed to the wind farm location and tethered in place, with little disturbance to the marine environment.

BOEM Process

Locating a wind farm 3 or more miles from land requires a lease from the federal government because it would lie in federal waters. The Bureau of Ocean Energy Management (BOEM) oversees the development of wind energy in federal waters along with other energy sources. BOEM created the “Smart From the Start” process for identifying suitable areas for wind development in cooperation with states. BOEM’s stated philosophy is centered on engagement of stakeholders, transparency, and providing opportunities for public input through formal and informal processes.

The process is initiated by Governor request. Once that is received, BOEM establishes an intergovernmental task force composed of elected local and state officials as well as state and federal agency personnel. The task force works with BOEM to:

- Provide a regional perspective to the leasing process

- Engage federal, state, and other entities in long-term resource planning
- Facilitate site selection through stakeholder coordination
- Promote issue identification and mitigation of potential impacts
- Collaborate on the use of scientific research and information
- Enhance environmental monitoring and mitigation strategies

Twelve such task forces are in place along the Atlantic and Pacific coasts. Some have progressed to the point where BOEM has been able to identify suitable areas (7 in total) for wind development. One of these areas is off the southern coast of Massachusetts. It is 742,974 acres in size and capable of supporting up to 5 GW of generation. Competitive auctions have been held and leases awarded in some of the identified areas, with more auctions scheduled in the near future.

Multi-state Cooperation

BOEM can also form a multi-state task force when two or more states see an advantage in working together. Massachusetts and Rhode Island came to this conclusion back in 2010 resulting in BOEM establishing a joint task force of the two states. The process led to the designation of a wind energy area along their joint border and the subsequent auction and lease of a portion of it to a developer in 2013. The Deepwater One project has a capacity potential of 1 GW.

The multi-state approach provides the opportunity for integrated, regional planning. One place where this could prove especially valuable is when considering how power from multiple wind farms in a region can be most efficiently transmitted to the mainland. Rather than each wind farm having to lay its own cable to shore and interconnecting it to the grid, perhaps laying in a common transmission backbone that parallels the coast and comes ashore at a few key locations makes more economic sense. The wind farms could then just “plug into” that system. Such a system might also be useful as a valuable offshore transmission corridor that may alleviate some of the congestion and stress on New England’s transmission system by helping to move power to where it is needed within the region.

Economic Activity

The development of offshore wind has the potential of creating significant economic activity within Portsmouth Harbor, other coastal communities, and even communities farther inland. Even if the large components of the generation units are

not manufactured or assembled here, there are extensive supply chain and service needs that New Hampshire businesses and workers could provide, including cabling, support services and vessels, substation and shore grid connections, engineering, environmental services, and the operation and maintenance of the wind farms over the long-term.

This type of economic activity is not dependent on wind farms being built off of New Hampshire's coast. For example, Cianbro, a Maine company, is currently under contract to produce electric service platforms for the Cape Wind project in Massachusetts. The Maine Ocean and Wind Industry Initiative is an example of an industry-led effort to identify workforce and supply chain strengths in the Gulf of Maine. Several New Hampshire companies are included in the Initiative's regional supply chain database.

It is hard to know when offshore wind will truly take off in the region, but it is clear that our neighbors to the north and the south are making serious efforts to develop the industry. Massachusetts is one of the leaders in the country at the moment in this regard. It therefore behoves New Hampshire to become more involved in this potentially significant area of economic growth, even with the limited coastline that we have. There is no reason why the proverbial saying that "a rising tide lifts all boats" should not apply to New Hampshire when it comes to offshore wind development.

Information and documents supplied to the Committee can be found at:

<http://www.gencourt.state.nh.us/statstudcomm/committees/2151/documents.aspx>

Attachment 1

List of Presenters

<u>Name</u>	<u>Organization</u>
Jeffrey Browning	Bureau of Ocean Energy Management
William O'Hara	Northeast Utilities
Val Stori	Clean Energy Group
Christian Williams	NH Dept. of Environmental Services - Coastal Program
Paul Williamson	Maine Ocean and Wind Energy Initiative
Bill White	Mass. Clean Energy Center
Joel Whitman	Whitman Consulting Group
Martin Wosnik & Ken Baldwin	UNH - Center for Ocean Renewable Energy

