

Massachusetts Technology Collaborative  
Cape & Islands Off - Shore Wind Process Meeting #5  
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Economic Impacts Section  
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Thanks to the Mass Technology Collaborative for providing this forum and for acting as an honest broker of information about this project, renewable wind – generated energy, and its effects on the environment, the economy and the community and the process of creating it itself.

Thanks to all of you for participating, and allowing me and the Cape Cod Technology Council to participate in this process. Today, I am primarily wearing my hat as Executive Director of the Cape Cod Technology Council. From that position I get to see and sometimes set in motion the development of some of the technologies and companies that are created on Cape Cod.

Our organization is about six years old, with a couple of hundred technology companies as members. Our mission is to create the infrastructure that allows for more technology companies to establish on Cape Cod and to help them grow here.

However, I also wear, all of us do, other hats. I am also an economist by training. A former public sector economic development official. A long time resident of Cape Cod. As someone who grew up here, on Lewis Bay, I benefited by the hospitality industry, as most of my family still does. I also am a parent of three young children.

The other day I was watching a movie with my five year old daughter. Anyone here with young children will know the movie I'm talking about, Monsters Incorporated. For those of you that don't know the movie, it's a story about a society of Monsters that derives its energy, in every diminishing amounts, from the screams and cries of the children they scare at night. Until, they inadvertently discover that they can generate more energy by making them laugh instead. Of course this is a Disney feature, devised by some very creative minds in Hollywood, but doesn't this story sound familiar?

My job here, today, I guess, is to give you a perspective on the project from a group of businesses intimately related with technology and its commercialization on Cape Cod and give you a sense of what this project might do or can do for our local economy.

What we are really talking about is jobs, income and wealth generation. But as I'll talk more about it later, it's also about something more, it's about how we as an economy are perceived.

Some quick background first. About 250,000 people live here. About 100,000 of us work on Cape Cod. The average annual salary is about \$30,000. Our average retiree brings in

about the same amount in non- earned income. Half our workforce has a college degree. 90 percent of our workers work for companies with less than 20 employees.

Somewhere between 4,000 and 6,000 people work in the science and technology fields depending on what job categories you include. And they average about \$45,000 a year in salary.

As far as we can tell, the Cape Wind project is the largest economic development project ever proposed for Cape Cod. It has significant ramifications on the current and future economy and its workforce. How will the project affect our local economy? The only answer is that none of us really know. But I guess the reason you have us up here is to give your our best prediction of what we think might happen given that we work with these issues every day.

My analysis starts with this simple question: Will we have more or fewer technology jobs on Cape Cod with the Wind Farm, and indeed, will have more or fewer jobs in all on Cape Cod.? Remember that question. Will this project mean more or fewer jobs?

What will those new jobs look like? How much income will they generate. Which jobs may not be here if the Wind Farm is built. What kinds of other business will be created? Which might go away, for better or worse?

One thing is for sure, with or without the Cape Wind, the economy is changing, all the time. I would contend that the name tag “seasonal economy based on tourism” is no longer a valid description of our economy.

Indeed most of the local economy is now year round. And if we look at the various industry sectors represented now in the economy by employment they look like this: 15 % are hospitality related, 15% are government employees, another 15% are educators and health care providers, 10% are engaged in professional and business services, and 15% in retail trade. Retail trade is no longer as seasonal but it is tourism related. About 5% are science and technology related jobs.(Source: Mass DET, EWS-2002)

And let’s not forget the retiree community. Something like 25,000 households are described as retired, but still receive significant income streams and indeed may have transferred additional wealth into the community.

Let me begin to answer my earlier questions this way. Of course, their will be more tech based jobs in the economy. And I believe that there will also be more overall jobs in the economy. By the very nature of the jobs created, they will pay more than the average salary.

As a lifelong resident and one that has worked in other industries here including hospitality, finance, and construction, on the Cape, I believe that there will be very few if any other jobs displaced by this project.

I don't see the impact on any other industry as directly as some others do here. Some tourist related jobs will be moved around. After 40 years of sightseeing trips to the Kennedy compound, I'm sure the Hy-Line is more than ready to start sending sightseeing boats to Horseshoe Shoals when Cape Wind mills are built.

We believe with the introduction of one of the most technologically intensive generation of energy production, wind generated electricity, we will also start seeing a clustering of activity around not only this technology, but related technologies.

*The scientific community will study it, the academic community will teach it, the tech industry will commercialize it, the experts will consult it, and the politicians will eventually take credit for it.*

We learned in this forum that Cape Cod is at ground zero for wind in the continental US. This is a natural resource that will eventually be exploited. All we're really arguing about is how and when, and how intensively, and who will profit and by how much. But we are going to exploit it.

If we so choose, we will be not only be the first but the leading experts of renewable wind energy technology in the US for a long while. We will be called upon to show the rest of the country how to do it.

We now have an opportunity to also bring the manufacturing components of wind technology regionally. We will, or at least should be building the wind turbines and blades in the region. There will be a benefit to other communities on the south shore or south coast if this project goes forward. And if GE, the turbine manufacturer, establishes their facilities here, chances are they will build not only these turbines but others for other New England projects.

There will be valuable expertise developed here around the manufacture of materials and industrial processes. Going hand in hand with the scientific and engineering expertise of harnessing the wind, this region then truly becomes the center of renewable wind energy technology in the United States. Cape Cod becomes the leader in this field of technology.

Why is this important? This is exactly what creates sustained wealth generation for a region. The creation and maintenance of a comparative economic advantage.

One of the advantages of this project is that it happens without direct public investment in this case. Because we have a private sector investor, unlike the European model of government investment, it really doesn't cost us or Massachusetts anything directly.

State governments across the country are rushing to invest in the higher technologies, to create competitive and comparative advantages. They are making direct public investments to leverage private investment. Think about it, we don't even have to ask for the public investment to get the private investment.

But as a result of our location and this project we, as a local and regional economy get to access tremendous amounts of federal research dollars made available for just this kind of technology development.

Recently an item crossed my desk. The Department of Energy in a pre-solicitation notice, (paraphrased) “invites expression of interest for proposals to develop cost-effective small wind turbine for use in distributed power applications. DOE intends to support via grants, private public partnerships to develop multiple technology pathways for alternative energy.” Hundreds of millions of dollars are being made available from the Federal Government to develop this technology right now.

Lets not forget this is exactly the kind of activity that defines the oceanographic community in Woods Hole. WHOI and the other institutions located here, have been taking advantage of the other natural advantage of the region, the sea for over 50 years, by leveraging government research dollars and commercializing their work. That is what is behind companies like Benthos, Accusonics, Data Marine, and Sippican.

How much more funding will be made available? And for what uses? All you have to do is think back to Tuesday night when the president committed \$1.2 Billion of research funds for the development of hydrogen powered automobiles.

Is there a hydrogen application from the development of renewable wind energy technology? Is the development of the technology for the storage of hydrogen and its commercial viability possible on Cape Cod? I think yes, because we have the wind and we are getting the technology to harness it. Might we be building fuel cells on Cape Cod in the future? I’m sure of it.

The introduction of new technologies, yield spin-offs that we can’t even identify today. For now we can predict only that there will be wind energy technology in the region.

But with these technologies, and this expertise being developed here, we are likely to see other innovations and technologies developed here as a result.

Who could have predicted a software industry cluster on Cape Cod or a computer telephony cluster 10 or twenty years ago. But they are here, and they are here because of a few entrepreneurs who decided that they could build their technologies and companies here, even without a natural competitive advantage, like the wind. Indeed with significant barriers.

As a result today we have companies developing anti-piracy software, and wireless computer telephony platforms. We have an extraordinary number of highly educated, creative individuals here on the Cape and are attracting them here all the time. Isn’t this the kind of Cape Cod we want more of?

In Cape Winds we have a private enterprise willing to invest \$500-\$700 million to build this project. It is our hope that this money is invested locally and regionally. It will create

an ongoing enterprise that will bring sustained income to the project specific workers to support the windmills' infrastructure.

But it will also encourage others to develop businesses around the technology. We can't identify all the technologies and industries that come into play when the project is here. But we have seen there are oceanographic spin-offs leveraging Woods Hole scientific research.

And there are some of the practical ramifications when a business locates in a community.

It's not that far off that the project will be hiring and training workers to maintain the turbines, blades, lines and platforms, which are all at sea by the way. And who better to work on the sea than those who already know the sea. Local fishermen. Imagine retraining fishermen to work regularly, for a salary, and benefits, on Cape Cod waters. Imagine training our kids at the regional tech schools to take up this highly skilled, highly paid jobs here on Cape Cod.

I do the job I do because I believe that our kids have a chance to live and work on the Cape in jobs and industries that will afford them the opportunity to do so. I think that the Cape Winds project will introduce another technology, renewable energy technology, that has the potential to create a renewable energy technology cluster in the local economy.

Let me get back to where I began. With my central question: Will we have more or fewer jobs in the economy as a result of this project? I think we will have more. Will it be a 1000 new jobs? I'm not sure. But I know we're talking about jobs, income and wealth generation and how we as an economy are perceived in the future.

This isn't just about what kind of economy that we here today will be living in when this project is built. This also about what kind of economy our children will be living in the future.

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