

Many intriguing parallels

Maine already has some of the infrastructure and skilled workers seen in visits to wind power businesses overseas.

By Matt Wickenheiser, Staff Writer
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Jon Lee of Sullivan & Merritt Constructors checks out a bank of fans used to create winds of up to 200 mph at German WindGuard, which does testing for power companies.

BREMERHAVEN, Germany — The lighthouse stands on a jetty in the harbor. Nearby, a maritime museum attracts visitors, and shipping containers are stacked high off a port entrance.

A shopping mall draws customers, and fishing boats bob at the docks.

It could be a scene from any number of coastal communities in Maine – South Portland and Bug Light, Portland and the containers, Bath and the museum.

Except for the wind power business park.

The local economic development agency opened the Speckenbittel industrial park several years ago after investing 50 million euros for the infrastructure, from roads to heavy-duty rail lines and docks for handling several hundred tons of turbine superstructures.

Four major companies have moved in, investing 250 million euros to construct buildings and equip them. It created 1,000 new jobs for the region, and another 500 are expected over the next two to three years.

It's definitely not Maine.

But could it be?

Gov. John Baldacci's trade mission to Spain and Germany visited Bremerhaven on Thursday, spending much of the day at Speckenbittel, touring companies and meeting with local officials and business executives.



Jon Lee and Gov. John Baldacci, left, listen as Mathias Grabs discusses an industrial park that houses wind energy companies.

The group started at a part of the park where a company makes the 500-ton steel tripods to support shallow-water offshore wind turbines.

Steve Levesque's eyes lit up as he took in the scene: At one end of the business park, a company that put together the turbine mechanics. At the other, the massive tripods and other pieces of superstructure. Rail to bring them together, assemble them and ship them out on barges.

Levesque, executive director of the Midcoast Regional Redevelopment Authority, which seeks to redevelop the Brunswick Naval Air Station, immediately saw a BNAS-Bath Iron Works connection.

Build the mechanicals in a hangar at the decommissioned BNAS, send them by rail to BIW, which could cut the steel and make the superstructures. Ship it all out down the Kennebec to wherever it's needed.

"We can help revitalize a lot of Maine's manufacturing economy," said Levesque. "If you have the will, you can do anything."

Mathias Grabs of the state of Bremen's economic development agency said repeatedly that any such development area needs lots and lots of space. After modules are made, they're often stored for months, sometimes for more than a year, as the project timing crystallizes.

There's plenty of space at BNAS, said Levesque, who is looking at various alternative energy production options for the 1,487-acre base, such as solar and hydrogen. American taxpayers have already invested \$4 billion in BNAS, he noted.

"You don't have to rebuild," he said.

The superstructure work being done at Speckenbuttelt could easily be done at BIW's land-level facility, said Lisa Read of BIW. Cranes and heavy-load transporters in use at Speckenbuttelt are the same ones used now at BIW.

"We have this sort of infrastructure right now – today," she said, adding that the Maine work force's skills line up perfectly with such work. "New opportunities are the future, and this is a perfect example."



Patrick Graham of James W. Sewall Co. inspects a model turbine blade Thursday as it is subjected to winds of 4 mph in a wind tunnel at testing facility German WindGuard.

Read suggested that partnerships could be formed to work on near-shore technology in the short term, while deep-water offshore technology is being developed. Then, the Maine groups could work on that deep-water wind technology for off the coast of Maine, she said.

After spending several hours in Bremerhaven, Baldacci said he immediately saw the parallels between work being done there and projects around Maine.

For instance, in Brewer, Cianbro Corp. is building modular pieces of a refinery and shipping them out. The ship work at BIW is another example. Cianbro's work in Portland Harbor, from oil rigs to ship renovations, is another.

Germany, and much of Europe, is well ahead of the United States, Baldacci said. But Maine and companies in the state could learn from what's already been done.

"We have an opportunity to leapfrog them," he said.

The business park contained much of what the industry needed, including test facilities and space for turbine companies to install and monitor prototypes.

The delegation spent some time at Germany WindGuard, a company that does wind-tunnel testing for wind power companies. A bank of massive fans provides wind for the system, up to 200 mph.

The tunnel at Speckenbittel was designed to test both aerodynamics and acoustics, studying ways to make turbine blades quieter.

Habib Dagher, director of the Advanced Structures and Composites Center at the University of Maine, said the university is breaking ground on a new lab to explore the use of robotics in the manufacture of turbine blades.

A wind tunnel, such as the one at Speckenbittel, would be valuable to industry in Maine, he said. That would be a next step, based on funding and timing.

The group also toured REpower Systems' turbine facility. The company is building shallow-water, offshore turbine units. The company isn't interested in deep water – it has enough work in the shallow ocean waters around much of Europe. And, said Rainer Mohr, vice president of offshore sales, his company doesn't see deep-water offshore as economically feasible yet.

It would take higher energy prices and some sort of feed-in tariff system to make deep-water offshore power work, he said, a "strong engagement of government support."

Maine is interested in deep-water offshore technology. Maine's coastal waters become very deep, very quickly, so shallow-water turbines wouldn't be feasible.

The deep-water sector is still embryonic. Only one deep-water turbine exists in the world, installed and set to run just a few weeks ago off the coast of Norway, a country with coastal waters similar to those off Maine.

It's a test platform, akin to what Baldacci's administration would like to have a few miles off Maine's shore.

Baldacci, Dagher of UMaine and Commissioner Jack Cashman of the PUC are traveling to the Norwegian turbine today, taking a 102-foot boat out about six nautical miles to see it.

"I think Maine could be 20 percent of the region's renewable energy," Baldacci said.

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