



The case for SC to become a wind power industrial hub is compelling and urgent. The need combined with the opportunities we have at this moment, creates a critical mass for success in these areas:

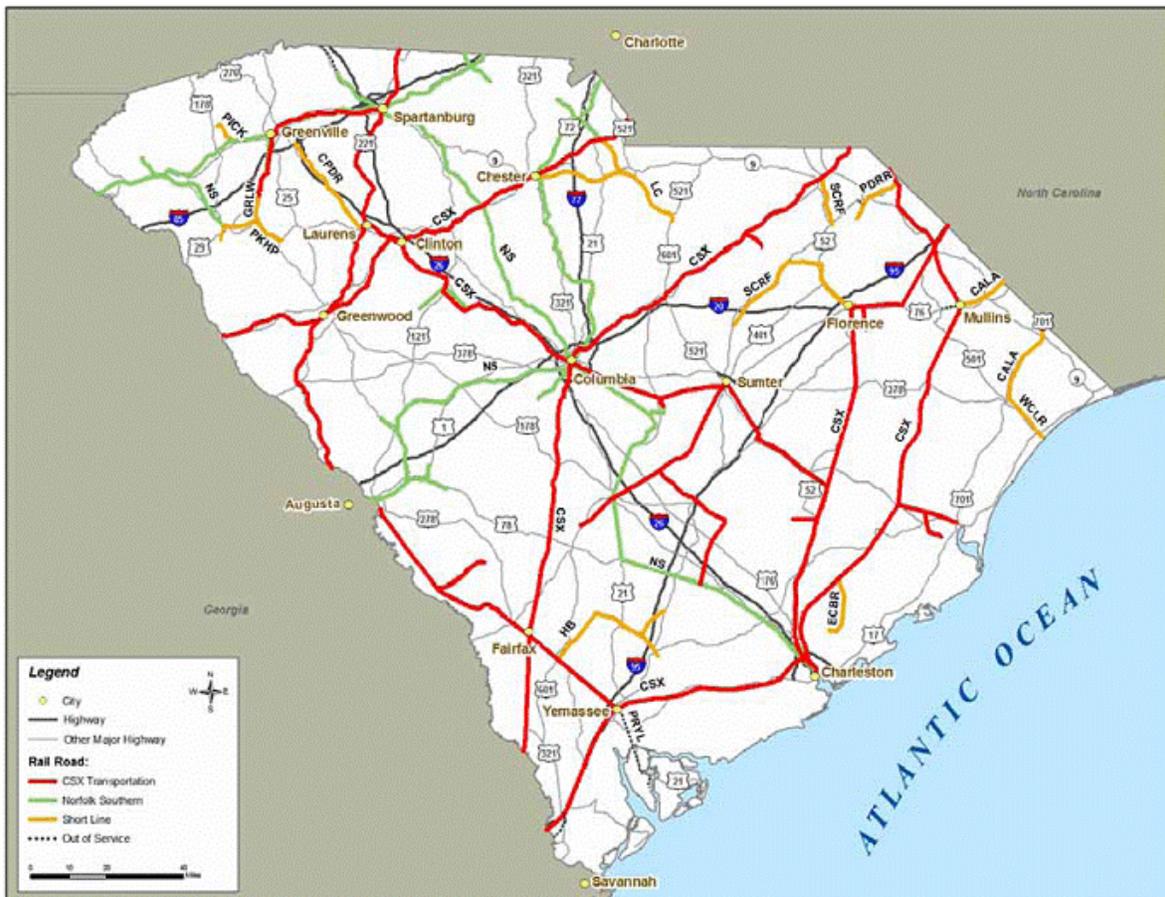
- ❖ Jobs
- ❖ Stewardship
- ❖ Economic Revitalization

## Our Starting Place

Important factors in developing an offshore wind farm

- ❖ Wind power capacity
- ❖ Shallow waters
- ❖ Proximity to the Port

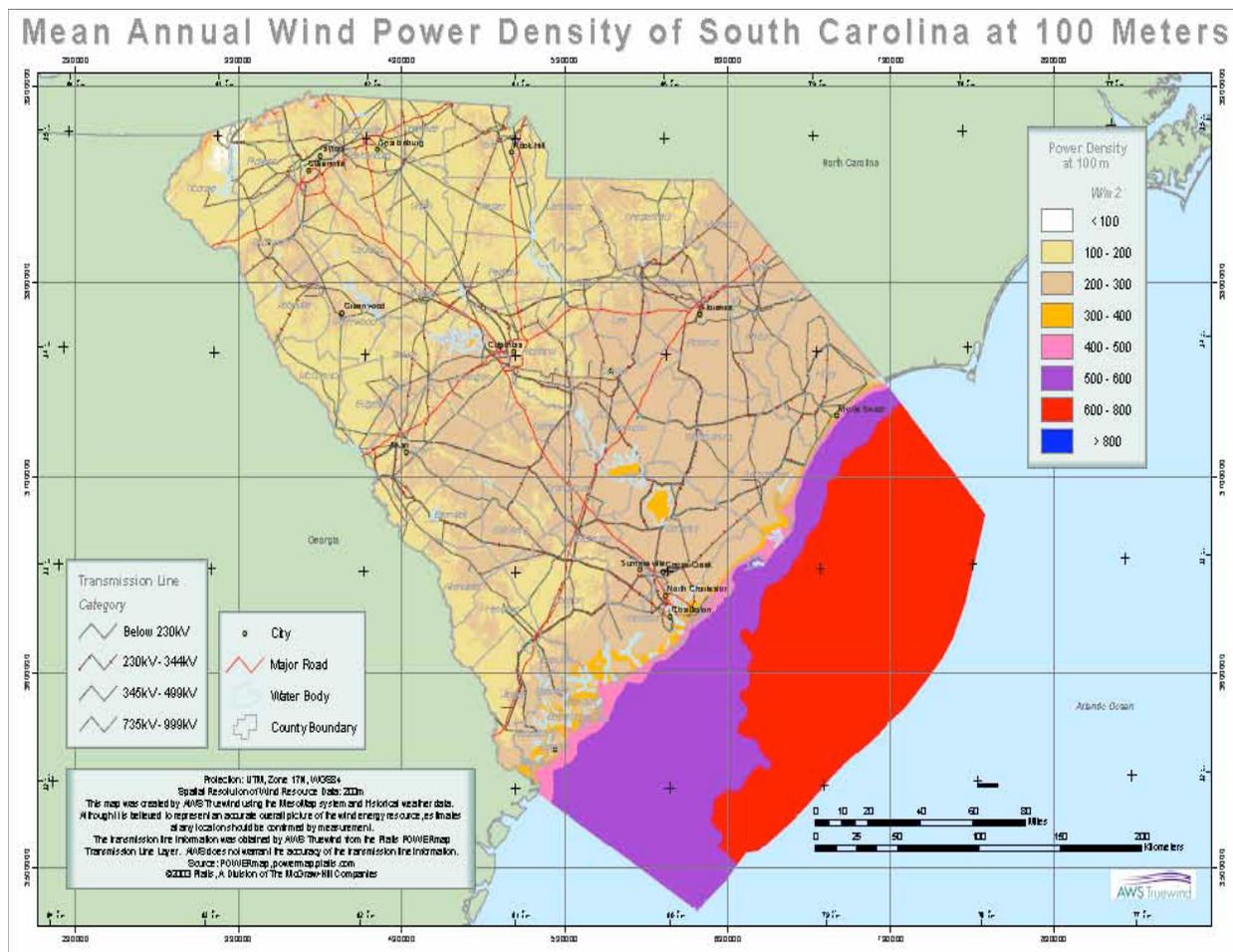
We have an existing rail & interstate system to transport components.



## The Science

Wind power becomes practical at Class 4 wind power density – we have Class 5 & 6 indicated by violet and red in the key below.

We could generate 210% of our usage.



Courtesy of Dr. Nick Rigas



## Jobs

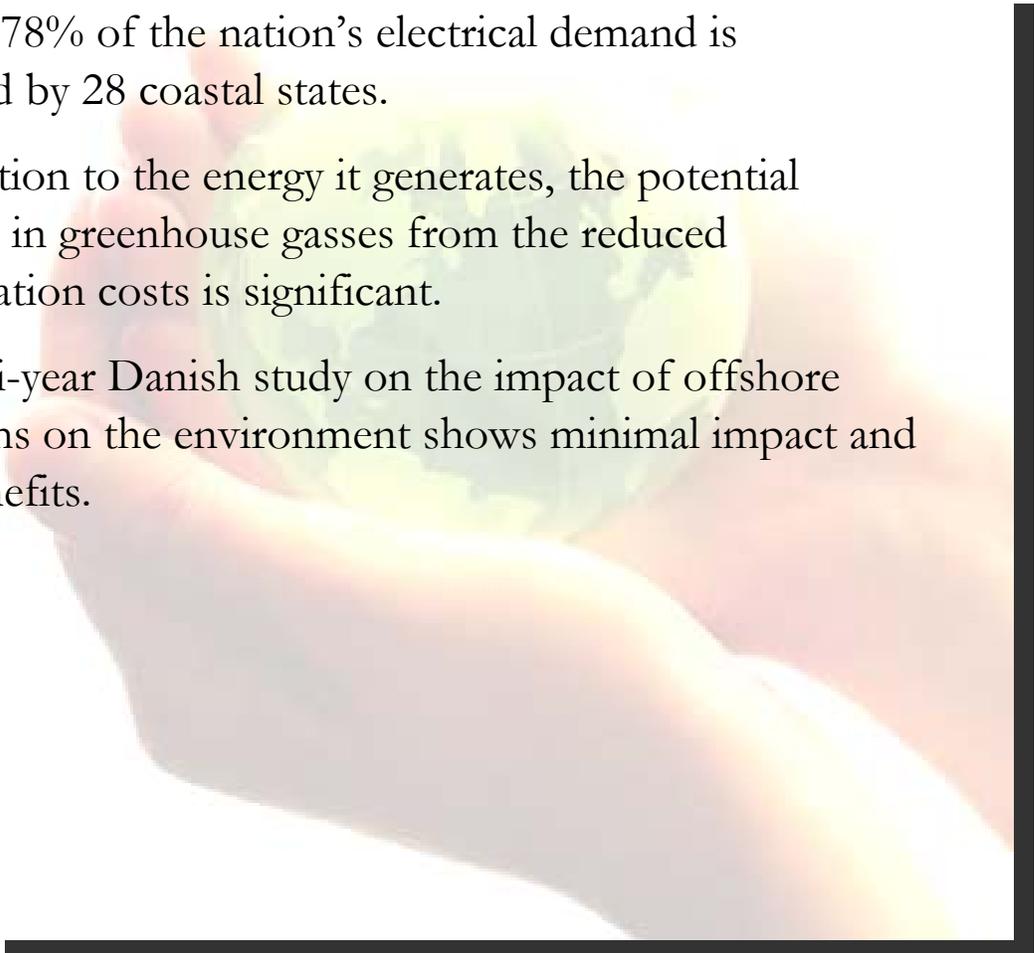
- ❖ According to the Department of Energy, manufacturing wind turbines and their components in South Carolina could result in 10,000 to 20,000 new manufacturing jobs.
- ❖ We have an existing manufacturing base.
- ❖ There is an existing pro-forma for a community college program for training technicians.
- ❖ Key industry players such as GE, Fluor, Nucor, and others are already established in SC
- ❖ Existing large-scale shipbuilding facilities.
- ❖ Low-cost manufacturing environment.





## Stewardship

- ❖ Wind power is clean, renewable and does not create the disposal problems associated with nuclear power.
- ❖ Dependence on foreign energy sources makes the US more vulnerable.
- ❖ An estimated \$1.5 billion per day leaves the US for oil.
- ❖ Nearly 78% of the nation's electrical demand is consumed by 28 coastal states.
- ❖ In addition to the energy it generates, the potential reduction in greenhouse gasses from the reduced transportation costs is significant.
- ❖ A multi-year Danish study on the impact of offshore wind farms on the environment shows minimal impact and many benefits.





## Economic Revitalization

- ❖ Wind power is the fastest growing renewable energy market in the world.
- ❖ The trend toward plug-in-electric cars will require increased demand for electricity.
- ❖ Economic impact on manufacturing, construction, operations and maintenance, and rural economic development
- ❖ The technology has been proven.
- ❖ An off shore industrial cluster could potentially capture locally up to 50% of the costs associated with building a wind farm.





## Opportunities Will be Lost

❖ Taking action now will prevent the need for companies like GE, Fluor and others to relocate to areas more invested in the technology.

❖ Vestas, the world leader in turbine manufacturing, established their industrial hub to service land-based wind farm development in Denver due to its rail infrastructure, access to Midwest markets, and manufacturing base.

❖ October 8, 2008



### **BREVINI: Firm to bring 455 high-paying jobs**

**By Aleasha Sandley, Herald Bulletin Staff Writer**

October 08, 2008 11:07 pm

— MUNCIE — Italian manufacturer Brevini Power Transmission will bring 455 high-paying jobs to East Central Indiana in the next three years, drawing upon the region's skilled work force. Brevini founder and CEO Renato Brevini will locate his company's U.S. headquarters to Delaware County's Park One Business Park at the Interstate 69/Indiana 332 interchange, a \$62 million investment in the area. The



## Opportunities Will be Lost

- ❖ **June 23, 2009** Secretary Salazar announces 5 exploratory leases for offshore wind energy development off the coasts of New Jersey & Delaware.
- ❖ **June 25, 2009** Secretary Chu announces 154M in recovery act funding to support energy efficiency and renewable energy projects in California, Missouri, New Hampshire, and North Carolina.
- ❖ **June 28, 2009** A groundbreaking ceremony for the construction of 3 - 1.5 MW turbines spinning on 250 foot high towers in Maine's first island wind power project.
- ❖ **June 29, 2009** North Carolina moves on coastal wind power legislation. Also, the North Carolina Coastal Resources Commission moved to create an exception for wind farm construction while still protecting the visual and natural characteristics of the beach.
- ❖ **July 1, 2009** Massachusetts draws zones for coastal wind farms.
- ❖ **July 13, 2009** What will South Carolina do?

## The Moment

- ❖ The leadership position of Jim Clyburn is ideal.
- ❖ The framework for a regulatory roadmap is completed.
- ❖ The market forces are making wind power more competitive every day.
- ❖ Both American and European demand for components is growing.
- ❖ We have relationships with research institutions including Coastal Carolina University, Clemson (including the Restoration Institute in Charleston,) College of Charleston Furman, University of South Carolina, Wofford, Savannah River National Laboratory, Oak Ridge National Laboratory, The Citadel, and technical schools throughout the state.
- ❖ Delaware, Rhode Island, and New Jersey have successfully navigated the process and we can learn from their experience.
- ❖ The climate change question is no longer a debate.



Mayor Riley understands the challenges that come with this mission and is committed to meeting it head on. He believes Nick Rigas says it well in his 2008 paper “An Offshore Wind Power Industrial Cluster for South Carolina.”

“South Carolina must strategically market its strengths to both American and European manufacturers before the opportunity is lost. Key industry, academic, environmental, and community leaders along with municipal, county and state elected officials must come together to form an alliance to attract this emerging new industry to the state.”

Charleston is committed to taking a leadership role in this process and understands the tremendous economic and environmental rewards that will follow.

The information in this document is based on research by Dr. Nicholas Rigas PhD., Adjunct Professor, Clemson University Restoration Institute and VP of Project Development, Eco Energy LLC. He has given us permission to use it.