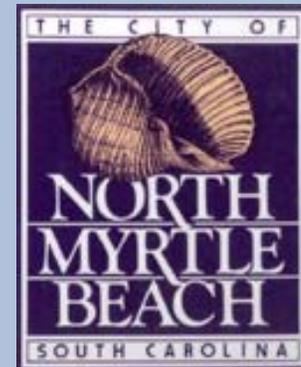


Wind Power

Onshore Wind Energy Along the Grand Strand



NORTH MYRTLE BEACH
CHAMBER OF COMMERCE
Convention & Visitors Bureau



Where is the opportunity besides off shore?

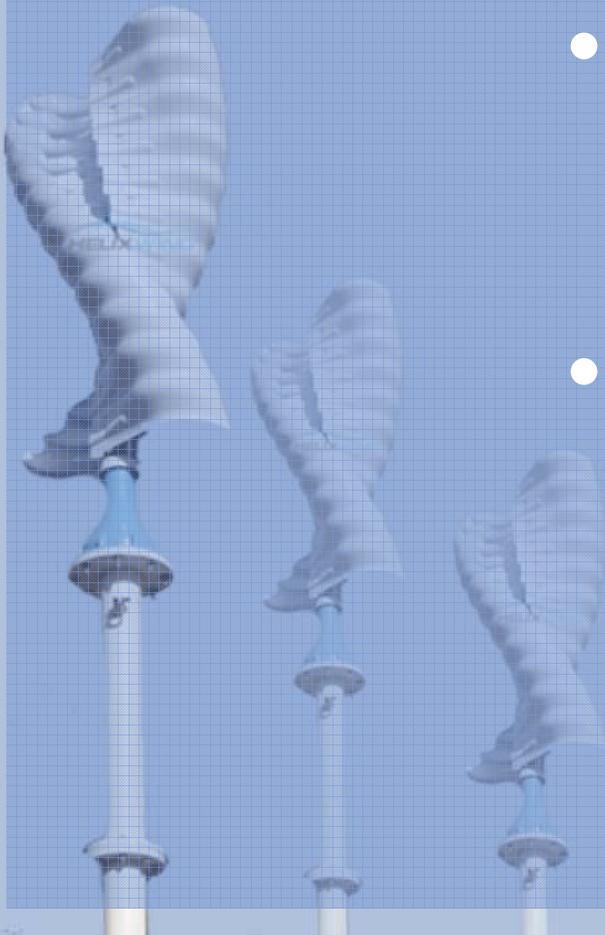
We're looking at the rooftops along the ocean front



The Grand Strand has hundreds of ocean front towers,
many 200 feet tall

Harnessing the wind brings two levels of economic opportunity...

- Micro – benefits to individual building owners
- Macro – benefits to the city, region and state

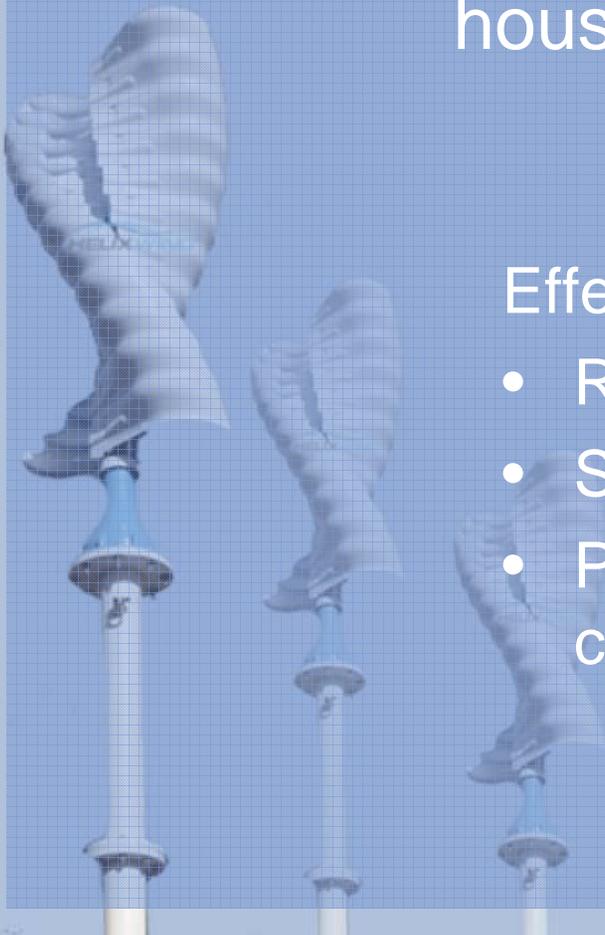


Micro level of opportunity

Simply provide free power to offset the house account of a condo building

Effects:

- Reduce the expense to the condo investor
- Shores up the value of the asset
- Protects the property tax valuations for the county and city



Macro level of opportunity

- Provide a viable market for the vertical axis turbine industry
- Provides a key component to a future smart grid system

Windspire: Vertical Axis Wind Turbine, Made in the USA by Mariah Power



How do we maximize the economic impact for the state of South Carolina?



Build a wind industry commons...

- Build a collective area for the benefit of the industry to supply...
 - research and development
 - innovation in engineering
- Provide structure for the industry to supply the product for local installation and export



Wind Energy Incubator Program

The North Myrtle Beach Chamber of Commerce in partnership with the City of North Myrtle Beach stands ready to facilitate this program.

- Bring turbine companies to innovate for an oceanfront application
- Bring upstart businesses to learn installation and maintenance
- Opportunity for new areas in:
 - Architecture
 - Electrical engineering
 - Structural engineering



Where are we now?

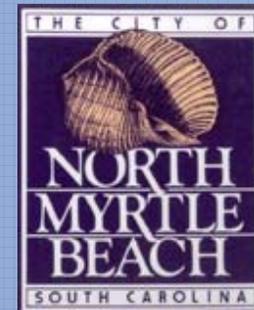
- Is there enough wind on the rooftops?
- We are conducting tests
- We are establishing a wind index (Apache pier)
 - Allows shorter survey periods
 - Allows easy comparative analysis between buildings
 - Offers an academic frame for a business perspective



Roof Tests



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Concepts for the future

We are constantly asking: “is there enough wind to feasibly install the wind turbines?”

But...

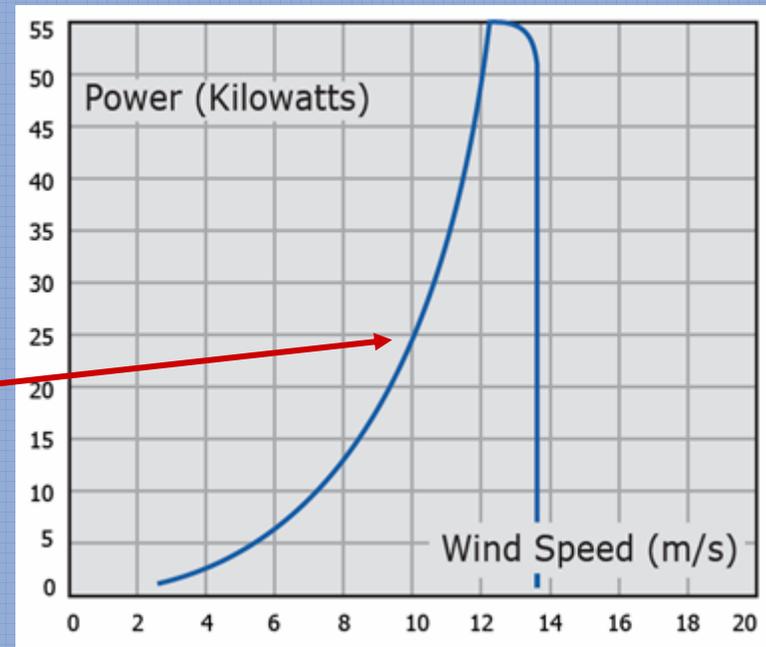
... what if the wind can be manipulated to our advantage?



Any increase in wind speed brings exponential returns...

Power in the area swept by the wind turbine rotor:

$$P = 0.5 \times \rho \times A \times V^3$$



where:

P = power in watts (746 watts = 1 hp) (1,000 watts = 1 kilowatt)

ρ = air density (about 1.225 kg/m³ at sea level, less higher up)

A = rotor swept area, exposed to the wind (m²)

V = wind speed in meters/sec (20 mph = 9 m/s) (mph/2.24 = m/s)

A beautiful example of unintended consequences

Avista Resort – North Myrtle Beach



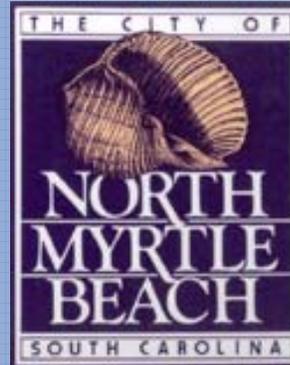
A design by Architect Derrick Mozingo

Part of the new industry commons is a new future in architecture and structural engineering along the ocean front

... and it is exportable!



Strata/London



The City of North Myrtle Beach, in conjunction with its partners, fully endorses and stands ready to support this Onshore Wind Energy project

- Furthermore, North Myrtle Beach seeks additional support and funding to become a “Demonstration City for the Advancement of Wind Energy Production”



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North Myrtle Beach Chamber of Commerce is on record in the support of seeking alternative energy solutions

- Working cooperatively with our local, state, and federal governments
- Supporting the research being conducted by Coastal Carolina University in the development of wind and tidal energy sources



Contact Information

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THANK YOU !