An Offshore Wind Project in South Carolina: *The Potential Natural Resource Impacts*

Presented to the
The Wind Energy Productions Farms
Feasibility Study Committee

Presented on Behalf of the
Regulatory Task Force for
Coastal Clean Energy

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Presentation Objective:

To further introduce to the Feasibility Study Committee a list of potential natural resource impacts that may be associated with a wind energy production farm located off the north upper coast of South Carolina.

Potential Environmental Impacts

- An offshore wind farm will create an affected action in the marine, near-shore and associated upland environments.
- There will be any number of potential environmental impacts.
- These impacts are covered under Federal or State environmental laws or regulations.
- The impacts will be analyzed under the stepwise process outlined in the National Environmental Policy Act (NEPA).

Potential Environmental Impacts

The stepwise process identified in NEPA.

- Identify the purpose and need of a project.
- Identify the potential environmental impacts.
- Avoid the potential environmental impacts.
- Minimize those impacts that cannot be avoided.
- Mitigate for those impacts that cannot be minimized.
- Compensate for those impacts that cannot be mitigated.

Potential Environmental Impacts

The fundamental questions –

- Where and what will they be?
- Are there any show stoppers?

- It all depends on location, location, location!
- Location for the wind farm and distribution systems.

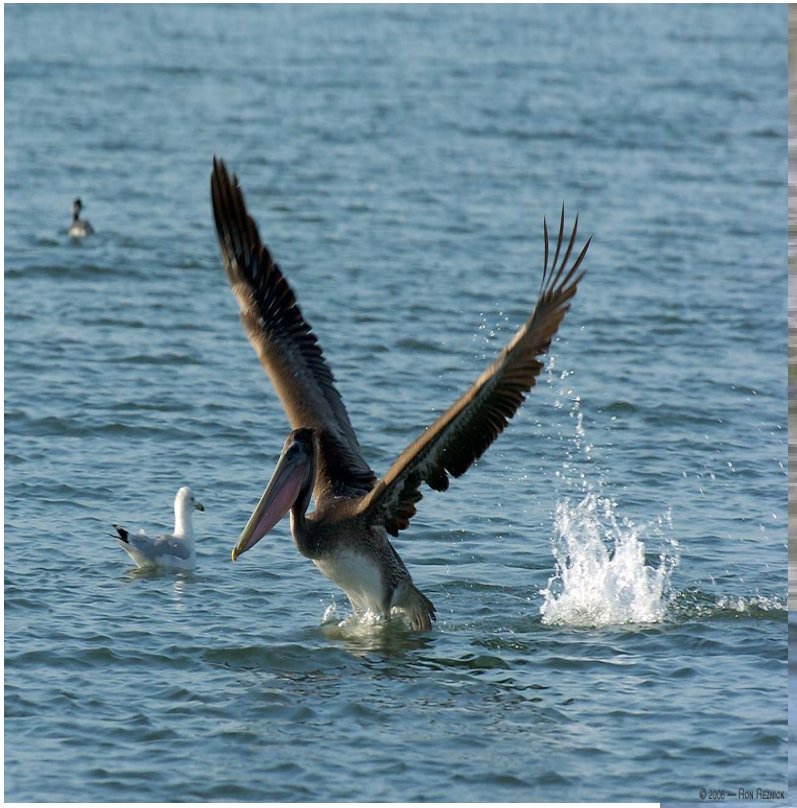
Potential Environmental Impacts

➢Where and what will they be?

1. Marine Environment: From site location to the high water mark
   a) Above the surface
   b) Surface
   c) Water column
   d) Bottom
2. Near-shore Environment: From the high water mark to inland connection destination(s)
3. Upland Environment: From the near-shore to inland connection destination(s)

Potential Environmental Impacts Marine – Above the surface

Potential Environmental Impacts Marine – the surface



Potential Environmental Impacts Marine – The water column

Potential Environmental Impacts Marine – The bottom

Potential Environmental Impacts Marine – The water column: Essential Fish Habitat (EFH)

Both the water column and the bottom habitat essential to long-term survival and health of fisheries resources. Includes bottom types such as sandy or rocky bottoms, vegetation or structurally complex coral or oyster reefs. Includes habitats for different life stages of each managed species. Encompasses those habitats necessary to ensure healthy fisheries now and in the future.

Potential Environmental Impacts Marine – The water column and bottom

Potential Environmental Impacts

Marine – The water column and bottom: transmission lines/cabling

Potential Environmental Impacts Near-shore Environment

Potential Environmental Impacts Near-shore Environment

Potential Environmental Impacts
Upland Environment: Protected Areas

Potential Environmental Impacts Upland Environment:

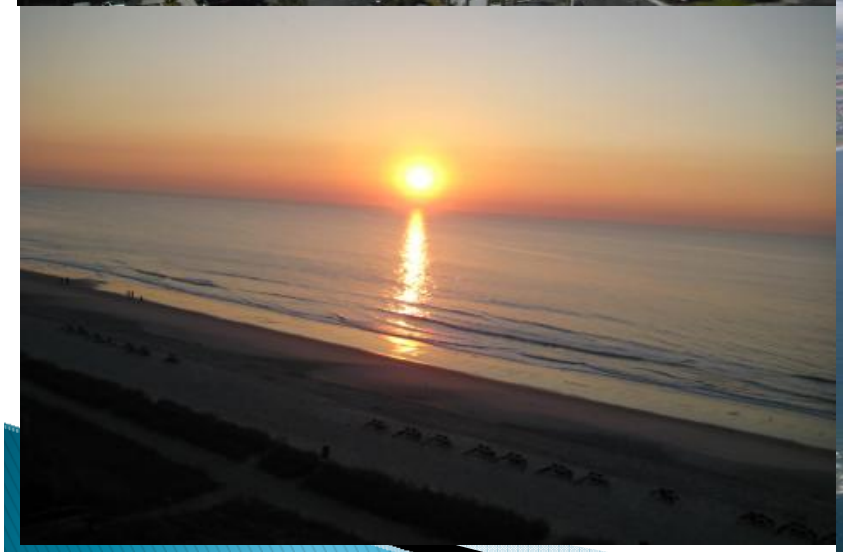
Protected areas

Potential Environmental Impacts Geophysical Issues

Potential Environmental Impacts Human Dimensions

Potential Environmental Impacts Human Dimensions

Potential Environmental Impacts Human Dimensions



Potential Environmental Impacts

➢Are there any show stoppers?

- Uncertain at this time, but probably not.
- Environmental decisions are based on balancing the need for any particular proposal with identifiable impacts.
- While there will be impacts, many of them can be avoided by selecting a location having desired wind but fewer environmental impacts.
- Where impacts cannot be avoided, they usually can be minimized by site selection.

Conclusions

Potential Environmental Impacts

- Location will determine environmental impacts.
- There are multiple potential environmental impacts to habitats, species, and the physical and human environment.
- The NEPA process will determine which environmental impacts apply.
- There may be difficult issues to work through, but there are no showstoppers believed to be present based on the information known at this time.

Questions?

Bob Perry
Office of Environmental Programs
SC Department of Natural Resources
perryb@dnr.sc.gov

Dr. Robert Van Dolah
Marine Resources Division
SC Department of Natural Resources
vandolahr@dnr.sc.gov

Susan Davis
Office of Environmental Programs
SC Department of Natural Resources
daviss@dnr.sc.gov

Laurel Barnhill
Wildlife & Freshwater Fisheries Division
SC Department of Natural Resources
barnhilll@dnr.sc.gov

Regulatory Task Force
for Coastal Clean Energy