

SOUTHERN SHORES PLANNING BOARD
Wind Generation Facilities Plan

To: PAG Wind Generation Facilities Project Team (Joe Archibald, Ed Cowell, Mike Florez, Larry Lawhon, Jim Millis, Bob Palombo, Merrie Smith, Nancy Wendt)

Copies: Planning Board (Mike Florez, Bill Gleason, Larry Lawhon, Bob Palombo, Jay Russell, Nancy Wendt, Sam Williams, and ETJ Rep, Ed Overton)

From: Mike Florez, Team Lead

Date: October 19, 2009

Re: **RECAP Working Session October 8, 2009**

Attach: none

The Wind Facilities Project Team met on October 8th from 3:00 pm to 5:00 pm at Pitt Center. Team Members Joe Archibald, Ed Cowell, Mike Florez, Larry Lawhon, Jim Millis, Bob Palombo, Merrie Smith and Nancy Wendt were present. Alvin Rountree, code enforcement officer was also present.

There were two guests, Pete Bruck and Manny Medeiros.

- The Agenda for the meeting was handed out and approved.
- The Recap of the last Team meeting held on 9/24/09 was approved as minutes of that meeting.
- Alvin Rountree reported that he has reviewed the NC State Building Code with regard to wind power generation systems and supporting structures. His findings were that there is more than adequate coverage in the state code with regard to the generator system and structural considerations of the supporting tower or pole to satisfy the public safety concerns on those issues. There was discussion about the structural integrity of buildings when wind turbines are attached to them. Alvin indicated that a design professional licensed in the state would be required to certify the adequacy of every component, including a building if it is attached, of the whole structural support system. Mike Florez also volunteered to ask a structural engineer for input on the same topic and will report findings at the next meeting.
- Project Task Updates – team members provided reports on task assignments as follows.
 1. Current Technologies – some highlights from Jim Millis’s report (see attached handout) are summarized below.

- a. Wind generation systems are categorized into three sizes, utility scale, industrial scale and residential scale. Utility scale production is not appropriate within the boundaries of the town.
 - b. Industrial scale systems might be appropriate for the school, golf course, or commercial sites.
 - c. The most common potential for wind power generation is for micro or small scale residential systems, particularly on sites near the ocean. Generally, sites located in wooded areas of town will not have access to sufficient wind without the use of tall towers. Tall towers are unlikely to be allowed due to minimum setback requirements (fall zone) and/or aesthetic impact considerations.
 - d. There are two types of turbines, vertical axis and horizontal axis. Vertical axis systems are a more recent innovation and relatively simpler in design than the horizontal.
 - e. The technology is rapidly evolving and systems are getting increasingly more efficient, smaller and cheaper in cost. In time, sites that are unsuitable today may have better potential in the future.
2. Incentives and Trends - Joe Archibald's report (see attached handout) is summarized below.
- a. Federal and state incentives in the form of tax credits will most likely boost property owner interest in installing wind power systems.
 - b. The small wind market grew 78% in 2008. Growth in the residential market is projected to be 30% over the next 5 years.
 - c. Increased efficiency in small turbine design is making those systems more productive per dollar spent. The cost of wind is about half that of solar.
 - d. Wind power generation is a big part of the overall green building trend. Financial incentives and subsidies for wind are likely to stimulate continued technological innovation and growth.

- Public Workshop Format – discussion on this topic led to a decision by the team to have a panel type of format with members of the team serving on the panel. The team also decided to hold the first workshop or public forum on October 28th. A tentative agenda with panel member selections was drafted and is attached.
- Project Schedule Update – The following is the project schedule as discussed.

October 19, 2009 - Planning Board / PAG update

October 22, 2009 – Wind Team Meeting

- a. Presentation and review of program for the public workshop

October 28, 2009 – Public Work Shop

- a. Program discussed will be educational with a panel format.
- b. Q & A will be included as well as opportunity for public comment.

November 2, 2009 – Planning Board / PAG Update

- a. Recap of workshop and project status

November 5, 2009 – Wind Team Meeting

- a. Review workshop
- b. Review progress on Report to PB & TC
- c. Review draft ordinance

November 16, 2009 – Planning Board / PAG Update

- a. Presentation of final report and draft ordinance
- b. Submit Ordinance draft to town attorney for review and rewrite.

November 19, 2009 – Wind Team Meeting

- a. Review all progress to date and remaining tasks and schedule.

The project schedule will have to allow time for the town's attorney to create a final draft ordinance for presentation to the Planning Board and Town Council. Also, there may need to be a second public workshop to present the team's report, findings and input on a draft ordinance. A second workshop could be scheduled during the Mayor's Chat session of a TC meeting.

Please note that the next meeting date is scheduled for **Thursday, October 22nd**.

Meeting Adjourned at 5:00 pm