

December 20, 2007

Stacy Foster
Florida Power and Light, Environmental Services
700 Universe Blvd.
Juno Beach, FL 33408
Via email to <stacy_foster@fpl.com>

Re: Wind Power Facility Siting on Hutchinson Island

Dear Ms. Foster:

On behalf of Audubon, thank you for the recent insights you have shared with us regarding Florida Power and Light's ("FPL") intentions to site eight wind turbines on Hutchinson Island, along with the pre-construction wildlife survey protocols FPL has contracted to conduct. As we have discussed, Audubon is very concerned about the looming implications of global climate change and we are pleased to see Florida exploring alternative energy solutions. This proposal would be Florida's first commercial wind power generation site, and accordingly, we are interested in ensuring that it is sited, constructed and operated at a standard that will be a model for the rest of the state. We believe that addressing the following concerns and recommendations will be necessary to achieve this standard.

Issue #1: Rigorous Pre-siting Wildlife Surveys

Florida's wind power generation potential may not be that of the rest of the country, except on our coastlines¹. It is important to recognize, however, that it is in these same coastal locations that wind technology may have the greatest potential for significant wildlife impacts. Florida's coastlines and associated wetlands harbor large numbers of resident waterbirds, the flyway's raptor populations funnel down Florida's duneline on their annual migrations, and neotropical migrants use these coastal stopover sites on their semiannual migrations to and from the Caribbean and Latin America. Many of these species can be found on state and federal imperiled species lists, and represent not just their Florida populations, but in fact in many cases, those of an entire hemisphere. For these reasons, we feel it is essential that pre-siting wildlife surveys have sufficient rigor and duration to accurately anticipate any unintended wildlife consequences of each siting.

Recommendation A: Minimum Survey Duration of Two Years

Because Florida has no commercial wind power generation currently, we also have no wind power siting guidelines. Fortunately, the US Fish and Wildlife Service ("USFWS") has

¹ National Renewable Energy Laboratory, <http://rredc.nrel.gov/wind/pubs/atlas/maps/chap2/2-01m.html>

national interim guidelines² and states that are already leaders in this technology also have their own state-specific guidelines, such as California³. We feel Florida could benefit by following the recommendations of both of these guidelines until Florida has guidelines of its own.

Specifically, with regard to the duration of pre-siting bird surveys, both of these guidelines support a minimum of two years, given the special conditions present at the proposed Hutchinson Island site. California's guidelines recommend a minimum of two years of pre-siting surveys for sites that have special circumstances such as those present at the Hutchinson Island location. These include "known avian migration stopover destinations," "water bodies within or immediately adjacent to the project," and "special status species occurring on or adjacent to a proposed site." Similarly, the USFWS interim guidelines suggest that three years of monitoring data should be collected and used for those areas with "high seasonal concentrations of birds." They similarly suggest sites with documented occurrences of federally listed species, sites in known local bird migration pathways or where birds are concentrated (such as wetlands, refuges, staging areas, rookeries, roosts and riparian areas), as well as those areas prone to low cloud ceilings and fog, are inappropriate for wind power siting altogether. For all these reasons, Audubon feels strongly that a minimum of two years of rigorous surveys are necessary for sufficient documentation of potential impacts of these site choices.

Recommendation B: Technical Review Committee

The siting protocol provided details about how data will be collected, but does not address how it will inform decision-making regarding the wind project. Pre-construction data can help determine whether siting is appropriate, minimize impacts to wildlife with siting adjustments, and identify what mitigation may be appropriate, in addition to providing a baseline against which post-construction mortality may be measured. For this reason, Audubon suggests that FPL convene a technical review committee of outside representatives such as the state and federal wildlife agencies, wildlife conservation groups like Audubon and academic representatives to interpret the results of these surveys. There is widespread agreement that it is difficult to predict the severity of wildlife impacts based on pre-construction surveys; accordingly, this project deserves the benefit of the insights of a broad group of subject matter experts.

Recommendation C: Qualitative Review

We're glad to see that the contractor responsible for the avian surveys will begin with a qualitative survey of known data from the region. We will be happy to support this with Christmas Bird Count survey data, but also hope the report will reflect that this data does not capture the critical migratory periods of greatest concern. Historical local tower kill data, as well as any collision data FPL may currently collect on its nuclear facility, would help with

² May 2003. USFWS. *Interim Guidelines to Avoid and Minimize Wildlife Impacts from Wind Turbines*. <http://www.fws.gov/habitatconservation/wind.pdf>

³ September 2007. California Energy Commission. *California Guidelines for Reducing Impacts to Birds and Bats from Wind Energy Development, CEC-700-2007-008-CTF*. <http://www.energy.ca.gov/renewables/06-OII-1/index.html>

this assessment. Similarly, we are glad to see that the qualitative data from the FPL site that currently exists will be included, even if it is incomplete (lacking passerines and with some potential misidentifications such as Common Merganser). We hope this review will also investigate the locations of wading bird roosts and rookeries in the immediate area which may be impacted. We will look forward to the qualitative review when it is available.

Recommendation D: Quantitative Review: Variable Survey Frequency

While the survey frequency may meet the USFWS and California guidelines, we believe it would be appropriate for more intensive surveys during the fall to establish migrating raptor numbers. Migration can be variable because of prevailing winds and weather systems, and intermittent surveys may easily miss peak days/times. Timing surveys with weather systems or increasing diurnal coverage during migratory periods would be appropriate. Similarly, the experience of other Florida Atlantic Coast raptor watch sites could inform your survey's timing (these would include both St. Johns Audubon's fall Peregrine Falcon monitoring, as well as the work done by the Florida Keys Raptor Migration Project).

Recommendation E: Quantitative Review: Nocturnal Surveys

FPL's original survey protocol suggests that nocturnal NEXRAD surveys might be optional. Audubon agrees with the USFWS that these must be mandatory; in fact, some of our greatest concerns are for collision losses of nocturnal migrants. NEXRAD may be one inexpensive tool to employ, however we caution that it is well accepted that NEXRAD does not give good site-specific data and will only survey bird and bat numbers well above rotor height. For a greater degree of specificity, there has been greater success with small-scale marine radar arrays which have been employed elsewhere on the East coast of the US. While this would incur a greater cost than the analysis of available NEXRAD data, it would also provide FPL with the site specific information needed by a technical review committee to truly assess the risks at the site. This first year of NEXRAD and onsite surveys could inform the placement and timing of marine radar array studies in the pre-siting survey's second year. For a treatment of this technique and excellent citations for more background, please consider reviewing the recent article by Kunz et al.⁴

Issue #2: Use of Public Conservation Lands for Siting of Privately Owned Utilities

We understand that FPL's current proposal is to site four turbines on its property adjacent to the St. Lucie Nuclear Power Facility, and another four on publicly owned lands to the north. These properties were in large part acquired by the state and leased to the county for recreation and conservation purposes. Audubon finds that county and state conservation lands are frequently approached for co-location of non-conservation uses that are nevertheless in the public interest—whether they are utilities, fire stations or schools. Regardless, we find the public interest value of these services does not diminish the fact that these uses would detract from the conservation value of these lands, and supporting such uses

⁴ Kunz, Thomas H., E.B. Arnett, B.M. Cooper, W.P. Erickson, R.P. Larkin, T. Mabee, M.L. Morrison, M.D. Strickland and J.M. Szewczak. (2007). "Assessing Impacts of Wind-Energy Development on Nocturnally Active Birds and Bats: A Guidance Document." *Journal of Wildlife Management*. 71(8): 2449-2486.
[http://www.nationalwind.org/pdf/Nocturnal MM Final-JWM.pdf](http://www.nationalwind.org/pdf/Nocturnal_MM_Final-JWM.pdf)

would set a precedent for similar uses on conservation lands across the state. California's standards, for example, class "land protected by local, state or federal government, such as designated wilderness areas, national parks or monuments, state parks, regional parks and wildlife or nature preserves" as "inappropriate for wind development." For these reasons, we are unable to support the siting of these turbines on lands purchased with public funds intended for conservation purposes.

Issue #3: Coastal Construction and Vulnerability

Because of the siting of these structures immediately landward of the primary duneline, construction will be subject to the state's Coastal Construction Control Line program. Audubon is very concerned by the unstemmed tide of coastal development along highly erosive shorelines such as Hutchinson Island. Both condominiums and wind turbines are equally vulnerable to this erosion. While we understand that coastal siting of wind turbines is essential for sufficient power generation, we feel Florida needs to consider what protections will be acceptable to protect such structures if erosion makes such measures necessary. We would hate to see infrastructure like this sited in such a way as to necessitate expensive and destructive public renourishment or armoring projects to protect them in several years' time. To this end, it would be appropriate for FPL to describe what coastal erosion challenges and mitigation will be necessary to this project.

Conclusions

While Audubon of Florida is concerned about setting an appropriate precedent in the siting protocols related to this project, we do not think that the issues we've raised are beyond resolving. We look forward to working with you on this project and appreciate your recent efforts to include us in this process. We trust that FPL and Audubon both share concerns stated clearly in the California guidelines, that "[if inappropriately sited projects] move forward despite indications that high levels of bird or bat fatalities might occur, operations avoidance and minimization options to reduce the impacts are limited, and the project may require costly, ongoing reassessment of impacts and adjustment of mitigation." Audubon wants to ensure that this project is successful with a minimum of impacts on natural systems, so that it can be an example for similar appropriately sited projects in Florida, demonstrating that renewable energy has a crucial role to play in our state's future.

Thank you for your consideration.

Sincerely,



David E. Anderson
Executive Director