

what impact, if any, different tower structures may have on migratory birds. Comments should include any studies or research on this issue, and should address the relative impact on migratory birds of guyed towers, self-supporting lattice towers, monopole towers, or other structures such as "hidden" towers that are made to resemble trees, for example. Are there factors that may make a particular type of tower structure more or less of a risk to migratory birds? For example, would guyed towers pose more of a risk than other tower structures to migratory birds at night in inclement weather? We also seek comment on whether particular tower designs or potential deterrent devices such as visual markers may deter migratory birds from towers.

4. Location of Antenna Structures and Other Factors

23. We seek comment on research or other data relating to any other matters within the scope of this inquiry. For example, is there information concerning the impact on migratory birds of communications towers located in or near specific habitats, such as wetlands, which may be a possible location of migratory bird populations? Do towers on ridges, mountains, or other high ground have a differential impact on migratory bird populations and, if so, are there scientifically rigorous studies that address such effects and their causes? We seek comment on the impact on migratory birds, if any, of locating towers in areas with a high incidence of fog, low clouds, or similar obscuration, in proximity to coastlines and major bird movement corridors, or either clustered near or dispersed from other towers. Comments on the role of any of these factors should consider the extent of any such impact during migration seasons. We also seek comment on any other factors that may influence the impact of communications towers on migratory birds. In addition, are data available from studies of non-communications facilities which may be relevant on the issue of the impact of communications facilities on migratory birds? If such information is relied upon, commenting parties should establish the relevance of that information and the relationship of facilities used in those industries to facilities used in the communications industry.

24. Certain migratory bird species may hold particular cultural or religious significance to Indian Tribes. The Commission has made a commitment to consult with federally recognized Indian tribes to the extent practical prior to implementing any regulatory action or

policy that will significantly or uniquely affect Tribal governments, their land and resources. Consistent with that commitment, we specifically seek comments from the Tribes and other parties on whether any of the questions raised in this inquiry will significantly impact Tribal governments, their land, and resources.

B. Need for and Scope of Additional Study

25. In the event that parties believe that existing research is insufficient to permit the Commission to address fully the issue of migratory bird collisions with towers, we seek comment on what additional study or studies may be needed. We ask for comment on what variables the research should address, including possible lighting regimes, tower height, type of structure, location, and impact of different weather conditions. Comments should discuss the specific scope and parameters of recommended studies, including: the number of towers; different lighting regimes to be studied; whether a range of towers with different heights should be included; the geographic positioning of towers, including such factors as the incidence of inclement weather, topography, and proximity to areas that may be attractive to migrating birds, such as wetlands; and the different tower structures such as guyed or unguyed, including monopole, lattice, or other structures. We also seek comment on what types of procedures should be used to monitor birds that may be killed at communications towers during these studies. In addition, we request comment on whether studies can be structured specifically to research potential methods of reducing the potential for migratory bird collisions with towers.

26. Commenters should consider how much time would be needed to complete a new study or studies. Specifically, how many fall and spring migration seasons should be covered by any research, and how many summer seasons, if any, would be needed to monitor impacts on breeding, nesting, and local resident avian species? We seek comment on the factors that would impact the length of any study, including the number of towers that would be the subject of the research, and the particular testing procedures that would be used. In addition, there may be unpredictable factors, such as weather, that affect the time that it would take to complete a study. Estimates of the length of a study also should identify whether the estimates include the preparation of smaller pilot studies that may be needed to obtain

meaningful data that would be used to design a broader and more in-depth study. We also seek comment on whether pilot studies followed by one or more larger studies are necessary, or whether one or more smaller studies could yield sufficient information on which the Commission could base future actions respecting migratory bird issues. If one or more smaller studies alone would be adequate, comments should address the relevant protocols. We further seek comment on the potential value of monitoring bird deaths at particular towers outside the context of a formal study, either in addition to or in lieu of such studies.

27. We also seek comment on the appropriate party or parties to design and conduct a study. The Commission is not an expert in the area of migratory birds, and we seek comment on what other entity might appropriately oversee any research that could be used to establish relevant standards for the Commission's use. In this regard, we note that the FWS is the lead federal agency for managing and conserving migratory birds, and its Division of Migratory Bird Management undertakes a number of surveys in conjunction with the FWS Regional Offices. We also seek comment on any ongoing or planned studies with which the Commission might coordinate in order to achieve synergies and avoid duplication of effort.

28. Another important consideration is the cost of a study and the source of funding. Cost can vary widely depending, in part, on the length of the study, the number of towers to be included, the extent of the geographic area, and particular tower features such as height and lighting. Sources for funding such studies have been difficult to identify. Comments should address both the estimated cost of any studies and potential sources of funding.

C. Suggested Methods To Minimize Impacts

29. We seek comment on whether existing studies or research address the use of particular methods to minimize any impact of communications towers on migratory birds. For example, would particular lighting systems, devices located on or near facilities to deter migratory birds, or other measures help to minimize bird collisions with communications towers? Comments should identify any particular methods, discuss the extent to which they have been used on communications towers or other similar relevant structures, and quantify the results of their use. In addition, would alternative siting of towers to avoid particular areas be a