



STRIKE WARS

A NEW HOPE

How Wind Energy Development is Navigating
Complex Avian Regulatory Requirements with
Technological Advances

AEP Conference – April 4, 2016



PANELISTS

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OVERVIEW

- Introduction
- Regulatory Setting & Challenges
- Technology Overview
- IdentiFlight
- Discussion / Q&A



INTRODUCTION

- Wind turbines have been described as “bird blender[s]” and, conversely, part of America’s “clean and secure energy future.”
- While the monikers change, the facts about wind turbines remain constant:
 - Wind turbines kill or injure approx. 440,000 birds annually; 3% of the total bird fatalities
 - The US continues to set records in wind energy production and manufacturing



WIND ENERGY IN THE US

- Total U.S. installed wind capacity, through 4Q 2014: 65,879 megawatts (MW)
- Equivalent number of average American homes powered in a year by current installed wind capacity: 18 million
- Wind energy's percent of new generating capacity installed over last 5 years (2010-2014): 28%
- Total number of operating utility-scale wind turbines: >48,000
- Number of U.S. states with operating utility-scale wind energy projects: 39 plus Puerto Rico



WIND ENERGY POTENTIAL

- President Obama has an aggressive agenda to reduce carbon by 80% by 2050 and congress has extended Production Tax Credits
- DOE shows that wind can be a viable source of renewable electricity in all 50 states by 2050
- Could Supply 35% of national, end-use electricity by 2050

A long time ago in a galaxy far,
far away....



- Migratory Bird Treaty Act (MBTA) – 1918
- Bald and Gold Eagle Protection Act (BGEPA) – 1940
- Endangered Species Act (ESA) - 1973



MBTA

- Makes it illegal for anyone to take, possess, import, export, transport, sell, purchase, barter, or offer for sale, purchase, or barter, any migratory bird, or the parts, nests, or eggs of such a bird except under the terms of a valid permit issued pursuant to Federal regulations.



MBTA

- Congress enacted the MBTA in 1916, nearly a century ago in treaty between the United States and Canada, officially recognizing that overhunting and “indiscriminate slaughter” of migratory birds lead to population declines.
- Consequently, the United States entered into successive treaties with Mexico, Japan, and the former Soviet Union to further protect migratory birds.
- Today, the MBTA protects over 1000 different bird species, many of which are especially vulnerable to commercial wind energy development.



“I’VE GOT A BAD FEELING ABOUT THIS”

- The MBTA protects over 1000 bird species but unlike other conservation laws, the MBTA and its regulations do not provide for “incidental takes”
- Modern courts, interpreting the 1918 law, are split on commercial actors’ liability under the MBTA when protected birds are unintentionally killed.



WIND ENERGY GUIDELINES

- The DOI administers the MBTA, acting through the USFWS, who has not promulgated any permit for the unintentional injury or death of protected birds
- In the absence of such a permit, FWS developed the Land-Based Wind Energy Guidelines (WEG) for wind energy developers.
 - purely voluntary
 - provide wind developers with a system for evaluating potential impacts on the environment and species of concern.
- The Wind Energy Guidelines operate on a “tiered” system, beginning broadly with an initial site evaluation and progressively narrowing to post-construction impact studies.
 - Implementation can be time-consuming and expensive



WIND ENERGY GUIDELINES

- FWS recommends early consultation so wind energy developers may avoid high impact sites, difficult or costly mitigation remedies, and potential MBTA criminal liability and fines.



MBTA ENFORCEMENT BEFORE WEG





"YOU MUST UNLEARN WHAT YOU HAVE LEARNED"

- Duke Energy Renewables developed wind turbines in Wyoming without applying for an eagle take permit.
- Once constructed, the project killed 149 protected migratory birds, including 14 golden eagles, hawks, blackbirds, and sparrows.
- Upon discovering the deaths of these birds, Duke self-reported to USFWS and the DOJ subsequently charged Duke with unpermitted MBTA takes.
- The DOJ prosecuted Duke, marking the first MBTA criminal enforcement against a wind energy developer.



"YOU MUST UNLEARN WHAT YOU HAVE LEARNED"

- In December 2014, PacifiCorp entered into an MBTA plea agreement that resolved misdemeanor charges regarding the mortality of 336 migratory birds, including 38 golden eagles, at two projects.
 - Also included commitments, but no charges, regarding two other wind energy projects.
- Up-front payments of penalties, restitution, and community service fees totaled \$1M in the Duke settlement and \$2.5M for PacifiCorp.
 - Each settlement also required payment of up to \$600K per year for five years of research and development work.



WHAT NOW?

- USFWS has announced that it is looking into the creation of an incidental take permitting program under the Migratory Bird Treaty Act and will be preparing a PEIS to evaluate the impacts of setting up a comprehensive incidental take permitting program (<http://birdregs.org/>).
- Four initial options have been identified:
 - Programmatic authorization for take associated with certain activities and industries.
 - Individual permits authorizing activities on a case-by-case basis.
 - Memoranda of understanding with federal agencies.
 - Voluntary guidance.



"PATIENCE YOU MUST HAVE, MY YOUNG PADAWAN"

- "Cry and call my ~~mother~~-lawyer"
- Best Practices:
 - Follow WEG
 - Coordinate early and often with USFWS
 - Strengthen administrative record
 - Possible overlap and protection under BGEPA



BGEPA

- Prohibits anyone, without a permit issued by the Secretary of the Interior, from "taking" bald eagles, including their parts, nests, or eggs.
- The Act provides criminal penalties for persons who "take, possess, sell, purchase, barter, offer to sell, purchase or barter, transport, export or import, at any time or any manner, any bald eagle ... [or any golden eagle], alive or dead, or any part, nest, or egg thereof." The Act defines "take" as "pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb."



INCIDENTAL TAKE UNDER BGEPA

- In 2009, USFWS adopted a rule authorizing permits for incidental eagle take.
 - where the taking is associated with, but not the purpose of the activity, and cannot practicably be avoided.
 - Most take authorized under this section will be in the form of disturbance; however, permits may authorize non-purposeful take that may result in mortality.



EAGLE TAKE UNDER BGEPA

- Provides that take will only be authorized where it is compatible with the preservation of either of the eagle species.
 - For purposes of the rule, “compatible with the preservation of the eagle” means consistent with the goal of stable or increasing breeding populations.
- Proves that a permit will be issued only when the take cannot practicably be avoided.
- Identifies programmatic take – take that is recurring across a range of times and conditions of locations – will be authorized only where it is unavoidable and occurs despite implementation of comprehensive measures developed in cooperation with the Service to reduce the take below current levels.
- Permit is only available for 5 years



WHAT NOW?

- Although the USFWS encourages developers to apply for take permits and to prepare ECPs, the chances of obtaining an eagle take permit and the terms of any such permit were (are?) far from certain.
 - USFWS has estimated that applicants should anticipate a processing time of four to 24 months for a programmatic take permit, depending, in part, upon the scope of the NEPA review.



MBTA & BGEPA

- Like the MBTA, BGEPA prohibits the “take” of eagles except as authorized by regulations
- BGEPA definition of “take” is broader than under MBTA encompassing “molest or disturb” as well as “pursue, shoot, shoot at, poison wound, kill capture, trap, collect” or destroy
- Although USFWS is focused on bald and golden eagle mortalities, it has preferred to take its criminal enforcement actions with the DOJ under the MBTA rather than BGEPA, apparently because criminal violations under BGEPA require a showing that an eagle was knowingly taken



“NO...THERE IS ANOTHER”

- EDF RE’s Shiloh IV project became the first wind facility to receive an Eagle Take Permit
 - USFWS broached the subject of a “legacy take” agreement before announcing its intent to grant an ETP
- Exempts eight EDF RE projects from enforcement actions for the take of birds protected under BGEPA and the MBTA that “may have occurred” up to 5 years earlier
- Requires EDF RE to seek eagle permits for the 7 covered projects that do not have an eagle permit and exempts these projects from prosecution for any takes occurring during the diligent pursuit of the eagle permits, as well as during the implementation of certain corrective actions



“NO...THERE IS ANOTHER”

- USFWS agreed to “resolve civil enforcement” and “refrain from referral [to the DOJ] for criminal prosecution” of the alleged legacy take described above
 - EDF RE’s proactive approach to pursue the first eagle take permit in the country
 - Cooperation and willingness to seek eagle permits for seven other projects
 - its “voluntary disclosure” of possible take at the facilities,
 - Corrective actions to be taken, largely in the form of eagle detection and deterrent research and development



“NO...THERE IS ANOTHER”

- Additional agreements:
 - EDF RE agreed to expend a minimum of \$405,000 in research and development of eagle detection and deterrent technologies
 - Submit draft ECPs and BGEPA permit applications for five of the seven unpermitted projects within one year of the of signing the Agreement and within 18 months for the other two.
 - In return, USFWS agreed to prepare a single EIS for all of the applications and render a decision on each application no later than 3 years after deeming the applications complete
 - USFWS accepted a single \$10,000 payment from EDF RE in full satisfaction of all civil penalties for the alleged legacy BGEPA and MBTA violations
 - “Other Agreements” Section



IMPLICATIONS

- Similar in concept to administrative consent orders or agreements commonly used
- The Agreement – its “Other Agreement” section in particular – could provide a framework for similar agreements at a cost significantly less than the Duke and PacifiCorp settlements.
- Systematic replication of the Agreement could provide wind energy facilities with a viable alternative to the MBTA incidental take permitting program USFWS began to explore.
- Such agreements may also allow developers and operators to better manage their own risk.
- Points to a more flexible alternative to criminal prosecution and may suggest an alternative to the nascent concept of MBTA permitting.



ESA

- Congress passed ESA in 1973
- The purpose is to protect and recover imperiled species and the ecosystems upon which they depend
- Administered by the U.S. Fish and Wildlife Service and the Commerce Department’s National Marine Fisheries Service (NMFS)
- Under the ESA, species may be listed as either endangered or threatened.
 - “Endangered”: a species is in danger of extinction throughout all or a significant portion of its range
 - “Threatened”: a species is likely to become endangered within the foreseeable future.
- All species of plants and animals, except pest insects, are eligible for listing as endangered or threatened.



ESA

- In the 1982 ESA amendments, Congress authorized USFWS to issue permits for the "incidental take"
- Thus, permit holders can proceed with an activity that is legal in all other respects, but that results in the "incidental" taking of a listed species
- Section 7 versus Section 10





CALIFORNIA ESA

- CESA states that all native species of fishes, amphibians, reptiles, birds, mammals, invertebrates, and plants, and their habitats, threatened with extinction and those experiencing a significant decline which, if not halted, would lead to a threatened or endangered designation, will be protected or preserved.
- The California Department of Fish and Wildlife will work with all interested persons, agencies and organizations to protect and preserve such sensitive resources and their habitats.



CESA

- The California Endangered Species Act allows for take incidental to otherwise lawful activity.
- Emphasizes early consultation to avoid potential impacts to rare, endangered, and threatened species and to develop appropriate mitigation planning to offset project caused losses of listed species.



CESA – OTHER PROTECTIONS

- Four sections of the Fish and Game Code list 37 fully protected species (Fish and Game Code Sections 3511, 4700, 5050, and 5515)
- Each of these statutes:
 - (1) prohibits take or possession "at any time" of the species listed in the statute, with few exceptions,
 - (2) states that "no provision of this code or any other law shall be construed to authorize the issuance of permits or licenses to "take" the species
 - (3) states that no previously issued permits or licenses for take of the species "shall have any force or effect" for authorizing take or possession



CESA – OTHER PROTECTIONS

- CDFW is unable to authorize incidental take of "fully protected" species when activities are proposed in areas inhabited by those species.
- CDFW has informed non-federal agencies and private parties that they must avoid take of any fully protected species in carrying out projects.
- Fish and Game Code Section 3513 prohibits any take or possession of birds that are designated by the Migratory Bird Treaty Act (MBTA) as migratory nongame birds except as allowed by federal rules and regulations promulgated pursuant to the MBTA.
- CDFW is unable to authorize the incidental take of five types of birds listed in Fish and Game Code 3505, or the incidental take of unlisted raptors or the destruction of their nests or eggs

TW2
TW3

Slide 34

TW2 Theresa Weber, 4/2/2016

TW3 should we state that eagles are fully protected? I keep forgetting this!!
Theresa Weber, 4/2/2016



“IT’S A TRAP!”

- What to do about conflicting regulations?
 - MBTA vs BGEPA, CESA “Fully Protected Provision” vs BGEPA and ESA
 - Definition of “Take”
- “Cry and call my ~~mother~~-lawyer”
- Best Practices:
 - Follow WEG
 - Coordinate early and often with USFWS and CDFW
 - Strengthen administrative record



CHALLENGES

- Legal challenges, including civil and criminal charges
- Funding/Investments
- Project Sale/Purchase



"NEVER TELL ME THE ODDS"

- Technological Advances:
 - Deterrence: light-based, acoustics, alerts vs. dissuasions
 - Detection: bio monitors, radar, camera system
 - Informed Curtailment
 - Detection and Identification



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IdentiFlight Detection Technology



DISCUSSION TOPICS

- Do you think IdentiFlight could eliminate the need for eagle take permits?
- Have you consulted with USFWS? What do they think?
- Does MBTA persecution keep you up at night? Impact your development activities?
- When does deterrence turn into eagle take?
- What will happen when the 5 year ETPs expire?



QUESTIONS?



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THANK YOU!