December 11, 2017

Service Information Collection Clearance Officer
U.S. Fish and Wildlife Service
MS: BPHC, 5275
Leesburg Pike
Falls Church, VA 22041– 3803

Re: Comments of the American Wind Energy Association on the U.S. Fish and Wildlife Service's Proposed Information Collection; Land-Based Wind Energy Guidelines; *OMB Control Number:* 1018–0148

The American Wind Energy Association ("AWEA")[1] respectfully submits the following information in response to the request for comments on the Proposed Information Collection related to the U.S. Fish and Wildlife Service's Land-based Wind Energy Guidelines, as published in the *Federal Register* on October 10, 2017. Our comments are limited to the accuracy of the estimate of the burden for the collection of information detailed therein.

Attached please find an estimate of the paperwork and respondent burden required for the wind industry to collect the data associated with the voluntary Land-Based Wind Energy Guidelines ("Guidelines") on a per project basis. Based on a survey of our member companies involved in the development of wind energy facilities, we believe these updated estimates are a more accurate reflection of the work necessary to adhere to the Guidelines, and we respectfully request that the Service utilize this estimate, combined with other assumed costs (*e.g.*, government agency costs) in this and any other analysis of the Guidelines going forward. Rather than have individual companies submit their respective data with respect to the estimate burden hours related to the Guidelines, we are submitting aggregated data and, therefore, have chosen not to include identifying information for any of our

[1] AWEA is the national trade association representing a broad range of entities with a common interest in encouraging the expansion and facilitation of wind energy resources in the United States, including wind turbine manufacturers, component suppliers, project developers, project owners and operators, financiers, researchers, utilities, marketers, and customers.

members that supplied the data.

Please feel free to contact us should you have further questions.

Sincerely yours,

Senior Director, Permitting Policy and Environmental Affairs

Senior Counsel

American Wind Energy Association
1501 M St. NW
Suite 1000
Washington, DC 20005
Phone: (202) 383-2500
Fax: (202) 383-2516
E-mail:

WILDLIFE STUDY COSTS	Average	Range		Assumptions, Notes and Comments
Based on Wind Energy Guidance Implementation				STUDY COSTS NOT A LINEAR RELN. WITH PROJECT SIZE DUE TO START UP, BASIC TRAVEL COSTS, AND TIME FOR DATA ANALYSIS & REPORTING
Update: 12/11/2017		Assumptions:		
Assumptions		20,000	Acres	
Pre-Construction Site Size		100	Megawatts	
Post-Construction Site Size				
	Approx. Average	Low End	High End	
Tier 1 - Multiple Site Desktop Screening				
TOTAL COST (Regional context)	$5,500	$3,000	$8,000	assumes regional context to the scope and therefore could be one or more individual sites. No site visit but does include multiple project sites, given regional context Agency contacts with USFWS, state game, state nat. heritage program
Tier 2 - Single Site Characterization w/ Site Visit				
TOTAL PROJECT COST	$25,000	$5,000	$45,000	Wildlife Single Characterization Study only but assumes additional analysis concerning level of fragmentation and other habitat condition considerations (e.g., movement corridors, geospatial data analysis combined with findings of site visit) that likely require additional site visits for confirmation Assumes 4 hrs total travel time, 6 hrs on-site No overnight stay Additional agency contacts with USFWS, state game, state nat. heritage program
Tier 3 - Pre-construction/Baseline Wildlife Studies				
Protocol Development, Agency Meetings	$14,500	$4,000	$25,000	assumes one (1) agency meeting will all applicable agencies engaged Protocol development/agency meeting includes meeting time, travel expenses (less overnight stay costs) and time to finalize protocol
Habitat Mapping	$37,500	$15,000	$60,000	Assumes habitat quality mapping in states with robust, geospatial datasets. The level of effort for habitat mapping requires much more detail and evaluation of habitat quality and assumes site visits have confirmed accuracy of geospatial data. Habitat mapping Used to ID sensitive plant communities and potential habitat for listed/sensitive species, can guide future species-specific surveys
Avian Use Study (Spring 15 Mar -31 May)	$35,000	$5,000	$65,000	Avian use in spring (or the first season of study) Includes time for project admin, which is likely higher at start of project. Also includes time for field set-up and training Avian use assumes 10 Obs. points, sampled on a weekly basis, 11 weeks Avian use Includes travel and expenses, with one overnight and perdiem per observation period
Avian Use Study (Summer 1 Jun - 31 Aug)	$42,500	$20,000	$65,000	Avian use assumes tech has 4 hours of travel, round trip Avian use includes some time for tech data mgmt, mailing, maintenance Avian use assumes ATV not needed to access points
Avian Use Study (Fall 1 Sep - 15 Nov)	$42,500	$20,000	$65,000	Avian use includes some time for tech data mgmt, mailing, maintenance Avian use includes extra time for final report and assumes no interim reports are produced
Avian Use Study (Winter 16 Nov - 14 Mar)	$50,000	$25,000	$75,000	Avian use includes some time for tech data mgmt, mailing, maintenance Assumes additional cost in order to traverse landscape during harsh weather months Avian use includes extra time for final report and assumes no interim reports are produced
Raptor Migration Survey - One Season	$22,500	$15,000	$30,000	Raptor Migration Protocol similar to Hawkwatch Raptor Migration Observer at one point, 7hr/day, 4day/week observing raptors only, over a 4-week period Assumes a 4-week study; a 6-8 week period which may increase these costs by 50-100%
Raptor Nest Surveys- Spring (April - June 08)	$25,750	$1,500	$50,000	Raptor Nest Survey assumes Tech conducts search and follow-up at potential nesting habitats a total of three times between mid-April and early June Includes travel expenses and time Raptor Nest Survey assumes add 6 days rental vehicle, 3 days for perdiem, lodging, and 3 units gasoline if conducted separately from other studies Raptor Nest Survey- If cliffs/rough country is present, may need aerial survey at a cost of about $10,000 for 10 hours of helicopter time plus fuel, Research Biol. Would In forested areas, call surveys may be required and add to cost
Eagle-specific Surveys	$10,000	$5,000	$15,000	Protocol development/agency meeting assumes one meeting
	$125,000	$75,000	$175,000	Helicopter nest surveys (seasonal)
	$200,000	$150,000	$250,000	Territory ground-based monitoring (Hawkwatch-style method) (1 year)
	$15,000	$10,000	$20,000	Telemetry (per eagle cost) deployment and monitoring (includes data analysis) (1 year)
	$12,500	$10,000	$15,000	Nest (per nest cost) Cameras installation and monitoring (seasonal)
				Assumes base-level, WEG-informed surveys. Additional effort need for BGEPA Conservation Plan survey protrocols
Breeding Bird Density Surveys - May 15 - June 15	$33,000	$10,000	$56,000	Breeding Bird Surveys include time to write up report Breeding Bird Surveys Assume data collection at 30 points or transects on three different dates Breeding Bird Surveys Assume it will take the tech 3 days to sample each round of points/transects Breeding Bird Surveys Assume ATV not required to access land
Nocturnal Avian Acoustic Surveys	$47,500	$10,000	$85,000	Nocturnal Avian Acoustic use a microphone to detect birds flying overhead at night Nocturnal Avian Acoustic surveys assume lower equipment costs compared to Anabat surveys, but analysis and reporting costs are similar
NEXRAD Surveys	$30,000	$15,000	$45,000	NEXRAD Radar data are free; survey cost almost exclusively time for data analysis and report preparation
Bat Use Acoustic Study				Bat Acoustic Studies Include time for project admin, field support and trouble-shooting, data mgmt, data entry, analysis, reporting
Anabat Surveys- Summer (15 July - 15 Oct 08)	$74,500	$25,000	$124,000	Bat Acoustic Studies Include cost of travel Bat Acoustic Studies assume purchase 6 Anabat units and equipment to have paired units at met towers, one on ground, one up high (equipment = bat hats; associated Bat Acoustic Studies more Anabats may be needed for larger projects, eastern projects, or projects with lots of bat habitat Bat Acoustic Studies Include time for project admin, field support and trouble-shooting, data mgmt, data entry, analysis, reporting Bat Acoustic Studies Include cost of travel Bat Acoustic Studies assume purchase 6 Anabat units and equipment to have paired units at met towers, one on ground, one up high (equipment = bat hats; associated Bat Acoustic Studies more Anabats may be needed for larger projects, eastern projects, or projects with lots of bat habitat
Nocturnal Marine Radar Surveys - One Season	$135,000	$70,000	$200,000	**Optional scope of work, used only in unique landscape circumstances** Nocturnal Marine Radar Studies assume 45 nights of radar sampling
Bat Mist-Netting - One or Two Sites	$52,500	$25,000	$80,000	**Optional scope of work: used only when deemed appropriate, informed by accoustic surveys or unique circumstances** Bat Mist-Netting assumes time to arrange permits, access, project set-up, reporting Bat Mist-Netting assumes 8 total net nights (1 site 8 nights or 2 sites 4 nights each), travel expenses Bat Mist-Netting assumes travel expenses, perdiem, lodging Bat Mist-Netting assumes no surveys for T&E species, which would require higher costs Bat Mist-Netting assumes some minor equipment costs (poles, string, datasheets)
Hibernacula Surveys	$27,500	$20,000	$35,000	**Optional Scope of Work: Bat Hibernacula Surveys assume this is an emergence survey** Bat Hibernacula Surveys assume Binary units used in conjunction to ID species

WILDLIFE STUDY COSTS	Average	Range		Assumptions, Notes and Comments
Tier 4 - Post-construction Mortality Studies for 1 Year at a				
TOTAL PROJECT COST	$272,500	$130,000	$415,000	Management Assumes one (1) agency meeting Carcass searching assumes 20 turbines searched every two weeks, fo a total of 26 searches per turbine per year Carcass searching assumes 4 hours round trip travel for tech Carcass searching assumes it takes 4 days to search 20 turbines Carcass searching assumes no additional site prep such as mowing Carcass searching assumes purchase of a freezer to store carcasses on-site Experimental Bias Trials assume travel and expenses for biologist to administer SEEF trials Experimental Bias Trials assume one SEEF and one CR trial (10 lg, 10 sm) per season Experimental Bias Trials assume purchase and shipping of trial birds Data Analysis and Reporting does NOT include analysis of weather data which would add about $6,000 to budget Min/max influenced by state-level requirements (e.g., PA, NY, OH, and CA represent significant increase in level of effort to meet data collection requirements, regardless of technical merit)
Tier 5 - Other Wildlife Studies				
	$250,000	$0	$500,000	Enhanced mortality surveys require daily searches at a subsample of turbines, assume 5 of the 20 searched turbines This budget should be considered IN ADDITION to Tier 4 Studies **NOTE: Tier 5 studies are ad hoc and generally not needed so cost assumed here are conservative and should be understood to be generally expensive, given research nature of the work.**
Avian Displacement Surveys (radar-based?)	$62,500	$0	$125,000	**NOTE: While contemplated in WEG there is no known application. Cost assumes migration displacement is characterized/assessed with radar though no such protrocol exists. Additional cost for Baseline assessment is unaccounted for under Tier 3.**
Replicate breeding bird studies done pre-construction	$30,000	$0	$60,000	Will require more analysis time to compare pre- and post-construction results
Total Average, Min and Max Cost of WEG Effort	**$1,678,250**	**$668,500**	**$2,688,000**	**Does not assume enhanced mortality surveys, the budgets of which should be considered IN ADDITION to Tier 4 Studies**

Reminder: Request for feedback: Land-Based Wind Energy Guidelines Burden Estimate

Thu, Sep 14, 2017 at 8:11 PM

Hi , thank you for the opportunity to respond to this informa on request. Please find EDPR's responses to the ques ons below. Let me know if I can clarify any of these.

Thank you!

Q: Whether or not the collection of information is necessary, including whether or not the information will have practical utility and whether there are any questions you feel are unnecessary;

A: The collection of information is a necessary and important component of the project development process. The information does have practical utility in ensuring project development avoids, minimizes, or mitigates potential impacts to wildlife that may be unique to a particular location. The WEGs provide important flexibility in the manner by which each question is investigated, allowing each project to be investigated relative to its unique location, biota, and design.

Q:What is your estimate of the amount of time it takes to complete each tier (this will be used to verify the accuracy of our estimate of the burden for this collection of information);

A:For each tier, we estimate the following time commitments in collecting the information requested in the WEGs:

- Tier 1: 4 developer hours per project; 30 projects per year on average: 120 hours total
- Tier 2: 30 consultant hours and 8 developer hours per project; 20 projects per year on average; 760 hours total
- Tier 3: 1,750 consultant hours and 50 developer hours per project; 15 projects per year on average; 27,000 hours total
- Tier 4: 1,250 consultant hours and 50 developer hours per project; 10 projects per year on average; 13,000 hours total
- Tier 5: 2,000 consultant hours and 50 developer hours per project; 3 projects per year on average; 6,150 hours total

Q:Do you have any suggestions for us on ways to enhance the quality, utility, and clarity of the information to be collected;

A: While we don't feel that there are any questions that are unnecessary, some questions from Tier 1 of the WEGs are redundant from Tier 2 and collection of this information can often be combined to reduce the overall burden.

Q: Any ideas you might suggest which would minimize the burden of the collection of information on respondents; and

A: While the WEGs are not prescriptive in the manner by which Tier 3 studies are conducted, the WEGs could be updated to account for the latest understanding of field survey effectiveness and wind energy impacts. Much of the Tier 3 investigations that may have been useful in project siting many years ago may no longer be truly relevant or useful today. For example, it is increasingly understood that acoustic surveys during pre-construction fieldwork have little usefulness for predicting outcomes during future project tiers.

Q: Any additional comments/feedback you would like to provide us.

A:We consider the WEGs to be an important component of the wind energy siting and development process, and can be relied on to ensure impacts to species – particularly those protected under the MBTA – are minimized to the extent practicable in lieu of a formal permitting process. Additionally, we feel that improvements can be made on how the different field offices are compiling and using data developers share, whether formally or informally. For example, there have been some instances in which USFWS claims to not have received data that had been previously submitted at the field office level.

EDP Renewables North America LLC
Environmental Affairs
53 SW Yamhill St, Portland, OR 97204
Direct 503.535.1516 Fax 503.222.9404
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Take ac on. Use energy efficient products.

From:]
Sent: Tuesday, S eptember 12, 2017 6:01 AM
Subject: Reminder: Request for feedback: Land-Based Wind Energy Guidelines Burden Es mate

[Quoted text hidden]

Request for feedback: Land-Based Wind Energy Guidelines Burden Estimate

Thu, Sep 21, 2017 at 8:46 PM

Hi ,

Please find our responses below.

Whether or not the collection of information is necessary, including whether or not the information will have practical utility and whether there are any questions you feel are unnecessary.

In general, the WEGs work for our company in terms of providing a process and guidelines for nearly all wind projects, and a set of expectations with our development partners, lenders and stakeholders. Overall, the greatest benefit of the WEGs is the tiered process and the flexibility allowed within the document to develop site-specific studies and actions based on the unique characteristics of each project. The general information collected in the tiers is useful and has practical utility for wind development.

What is your estimate of the amount of time it takes to complete each tier (this will be used to verify the accuracy of our estimate of the burden for this collection of information).

Tier	Per project hours
Tier 1	50
Tier 2	140
Tier 3	2076
Tier 4	1280
Tier 5	1600
Sum	5146

Do you have any suggestions for us on ways to enhance the quality, utility, and clarity of the information to be collected;

We prefer, in general, that the FWS not make major changes to the WEGs because they are well understood by consultants, developers, and stakeholders. The WEGs are flexible enough to address individual site conditions. One suggestion is related to the scientific understanding and study/risk assessment relationships, which have been advanced since this document was originally developed. Updating the WEGs to be reflective the current best available science to address where relationships have been identified, or importantly, survey types that are not clearly tied to risk (i.e., radar surveys for nocturnal migrants, acoustic surveys for bats) would enhance the quality of the information collected while also minimizing the burden.

Any ideas you might suggest which would minimize the burden of the collection of information on respondents.

There is often a high level of overlap in the questions among tiers, resulting in a high level of redundancy within a project. For example, a species might have been identified as potentially present in both Tier I and Tier II and actually present in

Tier III and Tier IV, so sometimes the response to questions is identical or near-identical for many questions. Therefore, using the tiers as guidelines rather than absolutes is more practical.

In addition, some of the most useful data to evaluate risk are based on existing data, both from studies done at other wind facilities or taxa-specific studies in the general area. Often, this type of research synthesis can provide equally or more useful data in a risk analysis than project-specific studies at a fraction of the cost. Although the WEGs allow for this analysis to respond to the tier questions, field offices often indicate that site-specific surveys should be conducted.

Any additional comments/feedback you would like to provide us.

Overall, the WEGs have been extremely helpful in providing a tiered framework in the wind development process and creating a standard understanding among the wind industry, USFWS, and other stakeholders. This voluntary process has successfully helped the development of wind energy within the US while simultaneously providing a framework for evaluating environmental impacts.

Although the WEGs themselves provide flexibility to be responsive to site-specific in terms of survey needs, our experience has been that individual field offices or the Office of Law Enforcement have interpreted them more strictly than currently written, thus offsetting some of the value of designed flexibility.

Sincerely,

AVANGRID RENEWABLES

Director, Permitting and Environmental Affairs

1125 NW Couch St, Suite 700, Portland, OR 97209
Telephone 503.796.6951

I

From:
Sent: Wednesday, August 30, 2017 10:08 AM
Subject: Request for feedback: Land-Based Wind Energy Guidelines Burden Estimate

In compliance with the Paperwork Reduction Act (PRA; 44 U.S.C. §§ 3501–3521), the U.S. Fish and Wildlife Service is preparing to send an Information Collection Request to the Office of Management and Budget (OMB) pertaining to the "Land-Based Wind Energy Guidelines" for review and approval.

[Quoted text hidden]

Request for feedback: Land-Based Wind Energy Guidelines Burden Estimate

Thu, Sep 21, 2017 at 12:37 PM

To:
Cc: Environmental <Environmental@patternenergy.com>

Hi :

See our responses below. I look forward to seeing you in October esp. the coffee part. ☺

Warm Regards,

Please find the Pattern Energy comments in response to your inquiry concerning the burden and value of the U.S. FWS Voluntary Land-Based Wind Energy Guidelines (WEGs).

- Whether or not the collection of information is necessary, including whether or not the information will have practical utility and whether there are any questions you feel are unnecessary;

We believe that the WEGs have had and continue to have an important role in the Wind Industry's continued efforts to develop, site, and operate wind farms in an environmentally responsible way while improving the science and understanding of wind-wildlife interactions.

The guidelines are flexible which allows each project to be investigated relative to its unique location. Also, the WEGs provide a tiered process. Information needs are evaluated at each tier and data are collected to inform the recommendations in that tier.

- What is your estimate of the amount of time it takes to complete each tier (this will be used to verify the accuracy of our estimate of the burden for this collection of information);

Costs will be variable depending on the size and complexity of the site being evaluated and the level of detail required to document the work. Tiers 1 and 2 are fairly straightforward. Tier 3 can be highly variable depending on the number of species that are studied in detail. Tier 5 studies are also highly variable in terms of whether they occur at all and, if they occur, the magnitude of the special study. The following hours provide a low and high estimate and assume the pre-construction site is 3,000 to 10,000 acres and the project size is from 100 to 200 MW. Our responses are based on an average of the low and high estimates for time burden per project for each respective tier. Because Tier 5 studies are less frequently conducted than other studies, we used the low end of our range estimate for that value.

Person Hours per Project (assumptions)

Requirement	Estimated Completion Time per Response (Hours)
Tier 1 (Desktop Analysis)	
Burden hours	25
Tier 2 (Site Characterization)	

Burden hours	190
Tier 3 (Pre-construction studies)	
Burden hours	2465
Tier 4 (Post-construction fatality monitoring and habitat studies)	
Burden hours	1783
Tier 5 (Other post-construction studies)	
Burden hours	1125
Totals	**5622**

- Do you have any suggestions for us on ways to enhance the quality, utility, and clarity of the information to be collected;

The best way to enhance the application of the WEGs is for the US Fish and Wildlife Service to ensure that their field offices follow the intent of the tiered process and understand the flexibility built into the WEGs to account to differences at each site. Frequently the Service requires that all species be studied regardless of the level of risk and pre-existing data. The wealth of data collected to date could be utilized to help inform study needs for a particular project, especially during the tier 3 and tier 4 processes. The Service should encourage WEGs users during informal consultation to utilize existing data in areas with an extensive record of survey data and rely on this data rather than conducting financial- and time-intensive field work with marginal incremental value. We recognize this is consistent with the risk assessment process outlined in the WEGs but that field offices do not always recognize this. Another improvement would be for the states that have guidelines to pattern them after the federal guidelines. The more uniform the implementation of the WEGs and any parallel survey requirements or protocols, the more robust will be the underlying data set that has been emerging at a rapid pace since the publication of the WEGs.

- Any ideas you might suggest which would minimize the burden of the collection of information on respondents; and

The primary change is referenced above; i.e., ensure that the Service comply with their own guidelines and utilize existing information to help inform risk. Train and inform field offices that the WEGs are not prescriptive by design and allow for flexibility from site to site and region to region.

- Any additional comments/feedback you would like to provide us.

The WEGs promote the use of common methods and metrics and include non-federal trust species. This process provides certainty for the industry while ensuring the states and NGOs that non-federally protected species are also considered. This also provides for a unique and growing body of statistically meaningful data far in excess of data available for other potential impacts to avian and bat species, ensuring that all stakeholders have a common base of understanding of wildlife issues considered in the process of developing a wind project. Eliminating the guidelines would exacerbate the problem addressed above where each Service field office would be encouraged to set their personal standards on the collection of wildlife information related to wind energy development. We feel that the WEGs are a powerful tool for internalizing the impacts of wind energy development and operations through informed siting decisions.

Director, Environmental Compliance

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Houston, TX 77002
patternenergy.com

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From:
Sent: Wednesday, August 30, 2017 12:08 PM
Subject: Request for feedback: Land-Based Wind Energy Guidelines Burden Estimate

In compliance with the Paperwork Reduction Act (PRA; 44 U.S.C. §§ 3501–3521), the U.S. Fish and Wildlife Service is preparing to send an Information Collection Request to the Office of Management and Budget (OMB) pertaining to the "Land-Based Wind Energy Guidelines" for review and approval.

[Quoted text hidden]

London, Rachel <rachel_london@fws.gov>

Information and Feedback on the Wind Energy Guidelines

Mon, Dec 11, 2017 at 8:03 PM

Hi ,

I hope you're doing well, and I extend best wishes to you this holiday season. I'm glad you're handling this 5-year review of the WEGS, your continuity and diligence will be very valuable.

Regarding feedback on the 2012 Land-Based Wind Energy Guidelines, I have the following responses:

1. Whether or not the collection of information is necessary, including whether or not the information will have practical utility; whether there are any questions you felt were unnecessary.

RESPONSE:

a. The information collected by adhering to the WEG is important, systematic, and usually creates confidence and increased understanding by Service staff reviewing the information.

b. Some study methods have advanced over the last 7 years, including how to collect data on bat activity, species presence, and risk. For example, we see very little value in collecting ground level data such as mist netting and acoustic monitoring at ground level, but some value in collecting acoustic data on met towers at rotor heights. We have seen more value in habitat (GIS-based spatial) reviews such as distance to trees, creeks, ponds, and escarpments. We recommend the methods for bats be updated to reflect advances in survey techniques and ineffective recommendations such as low-height acoustic monitoring be deleted.

c. Bird carcass search techniques have advanced and road & pad searches now have substantial data to compare them to full rectangular or circular search plots. Recommended practices should be updated to include this method as an alternative to standard square or circular plot searches.

d. More is now known about the limited impacts to grouse species from wind projects. The WEG should be updated to include these advancements in knowledge, and unnecessary recommendations be deleted.

e. Consultants report that 2 years of site-specific pre-construction study does not result in greater practical utility than 1 year of a well-implemented study, since pre-construction studies provide only coarse accuracy of risk prediction. The studies do help inform how to avoid and minimize impacts, but 2 or more years of study provide very little added benefit compared to 1 year, but greatly increase the opportunity cost and $$ spent. We recommend most references to 2 years of study be removed or modified to focus on 1 year of diligent study instead.

2. What is your estimate of the amount of time it takes to complete each form in order to verify the accuracy of our estimate of the burden for this collection of information?

RESPONSE: As I understand it, USFWS estimates Total Estimated Annual Nonhour Burden Cost of complying with the WEGs is $7,187,265 total for approximately 40 wind projects per year, or about $179,700 yearly per project on average. The hours burden assumed by USFWS greatly under-estimates the effort involved in following the WEG for a typical

wind project. We screen for and avoid projects that are very difficult to permit, so our burden cost reflects a typical 100 MW wind project rather than a difficult and sensitive one. We estimate the typical number of hours as 6,630 with a low of 3,463 hours and a high of 9,799 hours. Assuming consultant and staff averages $200 per hour all-in and 75% of the budget is personnel time for consultants and EDF staff (the remaining 25% is travel, equipment, insurance, and consumables), for a 100 MW new wind project the mean is $1,768,000, the low is $923,500, and the high is $2,613,000 over 2 years. Consequently, the FWS estimate is about 5 to 10 times too low. More importantly, the costs of conducting these studies to adhere to the Guidelines is very high.

3. Do you have any suggestions for us on ways to enhance the quality, utility, and clarity of the information to be collected? RESPONSE: As both the wind industry, consultants, and Service personnel understand the WEG we recommend changes be minimal, other than the ones identified herein.

4. Any ideas you might suggest which would minimize the burden of the collection of information on respondents. RESPONSE: We recommend the Service consider flexibility in methods and risk evaluations when scientifically supported by credible experts.

5. Any additional comments/feedback you would like to provide us. RESPONSE: The WEG serves at least two important purposes, first to induce wind developers to conduct comprehensive studies at the majority of wind projects even when there is no permit process to do so, and the second to raise the level of diligence to a somewhat uniform minimum across the country. Unfortunately, the WEG makes no explicit mention of prosecutorial discretion but only says FWS will consider a developer's documented efforts to communicate with the Service and adhere to the Guidelines. As a result it is not clear what consideration, if any, is provided for those following the WEG. Some companies choose to minimize their adherence to the WEG because the benefit in enforcement risk is low or unclear and the high costs and time involved are not commensurate with the benefits. We recommend the WEG include a clear statement of the benefit of adhering to the Guidelines in prosecutorial discretion so that the high costs are considered worthwhile by the majority of wind developers.

Best regards,

Director, Environmental Strategy

EDF renewable energy

EDF Renewable Energy

15445 Innovation Drive

San Diego, CA 92128

T: 858.521.3570

www.edf-re.com

Extension for feedback: Land-Based Wind Energy Guidelines

Fri, Oct 20, 2017 at 1:43 PM

Hi . I know I missed your deadline (by one day), but a ached is some feedback on your ques ons. Hopefully this is helpful. Happy to discuss if you have any ques ons or need some clarifica on. Thanks

Director, Environmental

Duke Energy Renewables

301 Home Avenue

Terre Haute, IN 47803

Office: (812)231-6771

From:
Sent: Thursday, October 05, 2017 10:36 AM
Subject: Extension for feedback: Land-Based Wind Energy Guidelines

Greetings,

I'm happy to let you know that we have been granted some additional time to allow for responses to the questions below. We did receive a few responses following our initial request on August 30th, however I am reaching out again in the hopes of obtaining some more data to make our estimates more robust. You've been contacted in particular because you've been identified as individuals with expertise in the use of the Land-Based Wind Energy Guidelines.

The new deadline for response is **Thursday, October 19**. If you are unable to participate, could you please send me a quick note? I will try to reach out to others in that case to ensure we collect enough feedback. If you know of anyone in particular who would be willing to respond, I'd very much appreciate their contact info. As always, I'm available by phone or e-mail if you have any questions. Thank you for your time! The request for feedback is below:

In compliance with the Paperwork Reduction Act (PRA; 44 U.S.C. §§ 3501–3521), the U.S. Fish and Wildlife Service is preparing to send an Information Collection Request to the Office of Management and Budget (OMB) pertaining to the "Land-Based Wind Energy Guidelines" for review and approval.

As part of this approval process, OMB requires we consult with individuals who are familiar with this collection of information. We would appreciate your assistance in validating our burden estimates provided to OMB. The burden estimates are the average amount of time we expect it to take someone to complete the steps necessary to adhere to the Land-Based Wind Energy Guidelines. You can find our burden estimate in the table below. The goal of this outreach is to reduce the burden on the public, where practicable. Specifically, we would appreciate your feedback on the following:

- Whether or not the collection of information is necessary, including whether or not the information will have practical utility and whether there are any questions you feel are unnecessary;
- What is your estimate of the amount of time it takes to complete each tier (this will be used to verify the accuracy of our estimate of the burden for this collection of information);
- Do you have any suggestions for us on ways to enhance the quality, utility, and clarity of the information to be collected;
- Any ideas you might suggest which would minimize the burden of the collection of information on respondents; and
- Any additional comments/feedback you would like to provide us.

We would greatly appreciate your feedback on the questions above no later than **September 15, 2017**. Thank you in advance for your cooperation and feedback.

TABLE: BURDEN ESTIMATE

Requirement	Total Estimated Number of Annual Respondents	Number of Responses Each	Total Estimated Number of Annual Responses	Estimated Completion Time per Response (Hours)	Total Estimated Number of Annual Burden Hours
Tier 1 (Desktop Analysis)					

Requirement	Total Estimated Number of Annual Respondents	Number of Responses Each	Total Estimated Number of Annual Responses	Estimated Completion Time per Response (Hours)	Total Estimated Number of Annual Burden Hours
Reporting	40	1	40	80	3,200
Recordkeeping				1	40
Tier 2 (Site Characterization)					
Reporting	35	1	35	366	12,810
Recordkeeping				3	105
Tier 3 (Pre-construction studies)					
Reporting	30	1	30	14,690	440,700
Recordkeeping				5	150
Tier 4 (Post-construction fatality monitoring and habitat studies)					
Reporting	45	1	45	4,018	180,810
Recordkeeping				5	225
Tier 5 (Other post-construction studies)					
Reporting	10	1	10	6,934	69,340
Recordkeeping				5	50
Totals	**160**		**160**		**707,430**

Fish and Wildlife Biologist

Branch of Environmental Review

U.S. Fish & Wildlife Service

Land-Based Wind Energy Guidelines Burden Estimate (Duke 10202017).docx

19K

Requirement	Total Estimated Number of Annual Respondents	Number of Responses Each	Total Estimated Number of Annual Responses	Estimated Completion Time per Response (Hours)	Total Estimated Number of Annual Burden Hours
Tier 1 (Desktop Analysis)					
Reporting	40	1	40	80 20	3,200
Recordkeeping				1	40
Tier 2 (Site Characterization)					
Reporting	35	1	35	366 250	12,810
Recordkeeping				3	105
Tier 3 (Pre-construction studies)					
gard	30	1	30	14,690 6000	440,700
Recordkeeping				5	150
Tier 4 (Post-construction fatality monitoring and habitat studies)					
Reporting	45	1	45	4,018 10,000	180,810
Recordkeeping				5	225
Tier 5 (Other post-construction studies)					
Reporting	10	1	10	6,934 3552	69,340
rRecordkeeping				5	50
Totals	**160**		**160**		**707,430**

- Whether or not the collection of information is necessary, Yes including whether or not the information will have practical utility Yes and whether there are any questions you feel are unnecessary No; If the WEGs are to be updated in the future, then the collection of this information from wind developers is necessary to inform such changes.

- What is your estimate of the amount of time it takes to complete each tier (this will be used to verify the accuracy of our estimate of the burden for this collection of information); Varies project to project depending on location and whether or not the project is new to the area or an expansion of an existing project. See table above for our estimate.

- Do you have any suggestions for us on ways to enhance the quality, utility, and clarity of the information to be collected; Sometimes it's difficult to estimate hours of effort. Perhaps using other metrics (i.e. range of $$) would also be informative. In the end, we need to look and see if the effort and cost are in line with the conservation benefits that result.

- Any ideas you might suggest which would minimize the burden of the collection of information on respondents; and No

- Any additional comments/feedback you would like to provide us. Generally speaking, the WEGs are a good tool and are functioning properly. However, based on new scientific understanding of impacts, there are some specific areas (i.e. Tiers 3 and 4) that could use some revisions.