September 2, 2014

Ms. Hope Grey
Service Information Collection Clearance Officer
U.S. Fish and Wildlife Service, MS 2042–PDM,
4401 North Fairfax Drive
Arlington, VA 22203

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

Dear Ms. Grey:

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 July 3, 2014. 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.

[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.

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

Sincerely yours,

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Director, Permitting Policy and Environmental Affairs

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Vice President of Federal Regulatory Affairs

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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: 8/27/2014		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
	$87,500	$75,000	$100,000	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
Tier 4 - Post-construction Mortality Studies for 1 Year at				

WILDLIFE STUDY COSTS	Average	Range		Assumptions, Notes and Comments
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				
	$325,000	$150,000	$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?)	$100,000	$75,000	$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	$45,000	$30,000	$60,000	Will require more analysis time to compare pre- and post-construction results
Total Average, Min and Max Cost of WEG Effort	**$1,768,250**	**$923,500**	**$2,613,000**	**Does not assume enhanced mortality surveys, the budgets of which should be considered IN ADDITION to Tier 4 Studies**