

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLUMBIA

AMERICAN BIRD CONSERVANCY,

and

BLACK SWAMP BIRD OBSERVATORY,

Plaintiffs,

v.

DAN BROUILLETTE, *Secretary,*
U.S. Department of Energy,

TODD T. SEMONITE, *Lieutenant General,*
U.S. Army Corps of Engineers,

and

RYAN D. MCCARTHY, *Secretary of the Army,*
U.S. Department of Defense,

Defendants.

Civ. No. 1:19-cv-03694-TJK

MEMORANDUM IN SUPPORT OF PLAINTIFFS'
MOTION FOR SUMMARY JUDGMENT

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LIST OF ACRONYMS

ACHP	Advisory Council on Historic Preservation
APA	Administrative Procedure Act
CEQ	Council on Environmental Quality
CWA	Clean Water Act
DOE	U.S. Department of Energy
DOI	Department of Interior
EA	Environmental Assessment
EIS	Environmental Impact Statement
EPA	Environmental Protection Agency
FOA	Funding Opportunity Announcement
FONSI	Finding of No Significant Impact
FWS	U.S. Fish and Wildlife Service
IBA	Important Bird Area
LEEDCo	Lake Erie Development Corporation
MW	Megawatt
NEPA	National Environmental Policy Act
NEXRAD	Next-Generation Radar
NHPA	National Historic Preservation Act
ODNR	Ohio Department of Natural Resources
OHPO	Ohio Historic Preservation Office

INTRODUCTION

This case is about the Department of Energy’s (“DOE”) funding and the U.S. Army Corps of Engineers’ (“Corps”) permitting of the Icebreaker Wind Project (“Icebreaker” or “the Project”), a first-of-its-kind proposed offshore wind energy facility in Lake Erie. With a cost to taxpayers in excess of \$40 million, the Project is meant to spur future development of offshore industrial wind energy in the Great Lakes region and beyond.

If constructed, Icebreaker will be the first offshore freshwater wind energy project *ever* built in the western hemisphere. Proposed for construction in the heart of a Global Important Bird Area, Icebreaker poses a grave threat to millions of birds and bats that migrate through the area twice each year and/or utilize the biologically fertile waters of Lake Erie as feeding and breeding grounds.

Given both the precedent-setting nature of the Project, and its potential to scar an ecologically critical area, the decision to fund and authorize the Project warranted rigorous environmental scrutiny. Yet, rather than conduct the robust examination that federal law required for this groundbreaking project—one that will fundamentally transform this freshwater ecosystem and pave the way for thousands of wind turbines in the Great Lakes—DOE has instead willfully ignored objections from expert agencies and shirked its most fundamental duties under the National Environmental Policy Act (“NEPA”), 42 U.S.C. §§ 4321–4347.

The U.S. Fish and Wildlife Service (“FWS”) is the federal agency with specialized expertise regarding wildlife and the biological threats associated with wind energy. It repeatedly called for DOE to prepare an Environmental Impact Statement (“EIS”) to evaluate Icebreaker. DOE opted instead to review the Project using a far less rigorous Environmental Assessment (“EA”), and arbitrarily concluded from its truncated analysis that the Project would have no significant environmental impact. DOE’s EA is no substitute for an EIS, but the EA itself is fatally flawed because DOE failed to consider the full scope of the Project’s impacts and any alternatives that

could substantially minimize avian mortality and mitigate its adverse impacts. Hence, DOE's cursory review violates NEPA and its implementing regulations, falling far short of DOE's duty to take a "hard look" at the full impacts of its decision and alternatives to it.

DOE's token consideration of Icebreaker's impacts on wildlife also contaminated the Corps' environmental analysis. Indeed, in permitting the Project under Section 404 of the Clean Water Act ("CWA"), 33 U.S.C. § 1344, the Corps chose to rely on data that FWS criticized as incomplete and flawed, a decision that precluded the Corps from complying with its own regulations. Similarly, rather than seriously consider whether the Project is "the least environmentally damaging practicable alternative," a finding the agency is legally required to make on the basis of clear and convincing evidence under Section 404, the Corps failed to examine an alternative presented by FWS which would minimize the Project's lasting impacts on birds and bats. Hence, the Corps' authorization of the Project violated the CWA.

Accordingly, the Court should hold that Defendants' inadequate environmental evaluation of Icebreaker violates NEPA, the CWA, and the Administrative Procedure Act ("APA"), 5 U.S.C. § 706(2).

BACKGROUND

I. STATUTORY AND REGULATORY FRAMEWORK

A. The National Environmental Policy Act

The NEPA process "help[s] public officials make decisions that are based on [an] understanding of environmental consequences," and "insure[s] that environmental information is available to public officials and citizens before decisions are made and before actions are taken." 40 C.F.R. § 1500.1(b), (c). The Council on Environmental Quality ("CEQ") has promulgated regulations implementing NEPA, which are "binding on all Federal agencies." *Id.* § 1500.3. Under

NEPA, agencies must coordinate with other federal agencies with “special expertise,” which means “statutory responsibility, agency mission, or related program experience.” *Id.* § 1508.26.

To accomplish its goals, NEPA requires agencies to prepare a “detailed statement”—an EIS—for “major federal actions significantly affecting the quality of the human environment.” 42 U.S.C. § 4332(C). The EIS must describe (1) “the environmental impact of the proposed action,” (2) “any adverse environmental effects which cannot be avoided,” and (3) “alternatives to the proposed action.” *Id.* § 4332(C)(i)-(iii). The impacts that require analysis include “ecological, . . . aesthetic, historic, cultural, economic, social, or health” impacts. 40 C.F.R. § 1508.8(b). An EIS must “[r]igorously explore and objectively evaluate” the impacts of “all reasonable alternatives” to the proposed action. *Id.* §§ 1502.13, 1502.14. The alternatives analysis is “the heart” of the NEPA process because it “present[s] the environmental impacts of the proposal and the alternatives in comparative form, thus sharply defining the issues and providing a clear basis for choice among options by the decisionmaker and the public.” *Id.* § 1502.14.

When an agency is uncertain whether an EIS is required, it may prepare an EA, which must “provide sufficient evidence for determining whether to prepare” an EIS, “[a]id an agency’s compliance with the Act when no [EIS] is necessary,” and “[f]acilitate preparation of an EIS when one is necessary.” 40 C.F.R. § 1508.9. In determining whether an EIS is required, an agency must consider whether the proposed action has a “significant” effect on the human environment within the relevant “context.” *Id.* § 1508.27. “[T]he significance of an action must be analyzed in several contexts such as “society as a whole (human, national), the affected region, the affected interests, and the locality.” *Id.* § 1508.27(a). The factors that an agency must consider in evaluating “significance” include whether a project’s effects are “likely to be highly controversial,” whether the “possible effects” are “highly uncertain or involve unique or unknown risks,” and whether the project “may establish a precedent for future actions with significant effects.” *Id.* § 1508.27(b). In

addition, an agency must consider whether the project may have an effect on “ecologically critical areas” or “historic or cultural resources.” *Id.* When an agency determines that an EIS is not required, it must issue a Finding of No Significant Impact (“FONSI”) explaining the reasons that its action “will not have a significant effect” on the environment. 40 C.F.R. § 1508.13.

B. The Clean Water Act

The CWA prohibits the discharge of dredged or fill material (pollutants) into waters of the United States unless authorized by a permit issued by the Corps under Section 404. *See* 33 U.S.C. §§ 1311(a), 1344. The Corps has adopted regulations, known as the “public interest” factors, to implement its permitting authority. 33 C.F.R. §§ 320.1-320.4. “Evaluation of the probable impact which the proposed activity may have on the public interest requires a careful weighing of . . . [t]he benefits which reasonably may be expected to accrue from the proposal . . . balanced against its reasonably foreseeable detriments.” *Id.* § 320.4(a)(1).

In addition, the Environmental Protection Agency (“EPA”) has promulgated regulations, known as the “404(b)(1) Guidelines,” for Section 404 permits. 33 U.S.C. § 1344(b)(1); 40 C.F.R. § 230. The Corps reviews all proposed Section 404 permits under both the Corps’ public interest factors and EPA’s 404(b)(1) Guidelines. 33 U.S.C. § 1344(b)(1); 33 C.F.R. § 320.2(f). A permit must be denied if it is contrary to the public interest or does not comport with the Section 404(b)(1) Guidelines. 33 C.F.R. §§ 320.4, 323.6; 40 C.F.R. §§ 230.10, 230.12.

In evaluating the impact of a discharge on wildlife, the Corps must consider “the loss or change of breeding and nesting areas, escape cover, travel corridors, and preferred food sources for resident and transient wildlife species associated with the aquatic ecosystem.” 40 C.F.R. § 230.53(b). EPA’s regulations also prohibit the Corps from granting a permit if there is “a practicable alternative” that would have “less adverse impact.” 40 C.F.R. §§ 230.10(a), 230.12(a)(3)(i). Practicable alternatives are those that are “available and capable of being done after taking into

consideration cost, existing technology, and logistics in light of overall project purposes.” *Id.* § 230.10(a)(2).

II. FACTUAL BACKGROUND

A. DOE’s Plan to Accelerate Domestic Offshore Wind Energy

In 2011, DOE announced its intent “to promote and accelerate responsible commercial offshore wind development in the U.S.” DOE_5905. In conjunction with the Department of Interior (“DOI”), DOE developed a “National Offshore Wind Strategy,” which sought to reduce “deployment timelines and uncertainties” associated with offshore wind energy development. *Id.* Thus, DOE and DOI developed a number of initiatives, including a plan to deploy “Advanced Technology Demonstration Projects that verify innovative designs and technology developments and validate full performance and cost under real operating and market conditions.” *Id.*

Under the banner of “Advanced Technology Demonstration Projects,” DOE sought to “[i]ninstall innovative offshore wind systems in U.S. waters in the most rapid and responsible manner possible,” and to “[e]xpedit[e] the development and deployment of innovative offshore wind energy systems with a credible potential” for competing with traditional energy sources. DOE_5906. “By providing funding, technical assistance, and government coordination to accelerate deployment of these demonstration projects,” DOE aimed to “eliminate uncertainties, mitigate risks, and support the private sector in creating a robust U.S. Offshore Wind Energy Industry.” *Id.*¹

¹ “Secondary goals” for the Advanced Technology Demonstration Projects included: “[e]stablishing world-class demonstration and test capabilities in conjunction with commercial developments to support validation of innovative technology, installation methods, and operation and maintenance strategies”; “[e]stablishing and validating the infrastructure required for offshore wind plant installation and operation”; “[s]upporting development of a world-leading domestic offshore wind industry utilizing innovative technologies adapted to the North American environment and operating parameters”; “[e]valuating current siting and approval processes and identifying opportunities for improvement”; and “[a]ddressing public concerns associated with the concept of offshore wind.” DOE_5906.

In March 2012, DOE published a “Funding Opportunity Announcement” (“FOA”) for “U.S. Offshore Wind: Advanced Technology Demonstration Projects.” DOE_5893. The FOA offered financing for a variety of different types of offshore wind projects, including a subset “focus[ed] on bringing technological innovation to market.” DOE_5907. “Examples of potential candidate projects include . . . turbines that are a first phase of a planned larger commercial project.” DOE_5908. The FOA said that the intent behind this subset of projects “is to assess a range of offshore wind plant systems utilizing innovative technologies that are optimized for locations and where future development has the highest probability of commercial viability.” DOE_5911.

The FOA proposed financing projects through five budget periods. DOE_5911–12. The first two periods include engineering and design, the procurement of necessary permits, and the completion of all environmental reviews, including NEPA review. *See* DOE_5911–12. Budget periods 3–5 encompasses the “fabrication, installation and commissioning stages of the project and validation of operating performance, reliability and [operation and maintenance] costs.” DOE_5912. “At the end of Budget Period 5, a project will be generating power and delivering it to an electric power grid.” *Id.*

B. DOE Competitively Selected Icebreaker to Receive Federal Funding

As currently proposed, Icebreaker would initially consist of six 3.5-megawatt (“MW”) wind turbine generators, 12.1 miles of collection cables buried in the lakebed, and an onshore substation that would deliver electricity into the Cleveland Public Power electric grid. *See* DOE_3267–70. Each of the six turbines would stand 479 feet tall with a total rotor diameter of 413.41 feet, yielding a total rotor-swept zone of roughly 134,224.2 square feet at each turbine (i.e., 805,345.2 square feet across all six turbines). *See* DOE_3274–75. Each turbine would be anchored to the lakebed using a “mono bucket,” which is essentially a suction cup driven into the lakebed at a depth of 40 feet. *See* DOE_3276–77.

The Project is proposed for construction between 8 and 10 miles off the coast of Cleveland, Ohio. DOE_3267–68. By any measure, Icebreaker is a precedent-setting project; Icebreaker would be “the first installation of wind turbines in a freshwater ecosystem anywhere” in the western hemisphere, “the first installation of offshore wind anywhere in the Great Lakes” DOE_482.

Icebreaker’s location places it in the heart of the Lake Erie Central Basin Global Important Bird Area (“IBA”), 4.5 miles from the Cleveland Lakefront IBA, DOE_3333, and adjacent to the Lake Erie Western Basin IBA, *see* Ex. A (Parr Decl.) at 3–4. Applying science-based criteria, these areas have each been formally designated as IBAs due to the overwhelming quantity of waterfowl that use the waters therein, as well as their status as a significant corridor for migratory species traveling through these areas twice each year to and from their summer breeding and over-wintering grounds. DOE_2854; *see also* Ex. A at 3–4.²

The Project proponent, Lake Erie Energy Development Corporation (“LEEDCo”), has conceded the precedential nature of the Project. LEEDCo stated that “[t]his world class demonstration facility will enable the development of infrastructure for offshore wind installations and operations throughout Lake Erie.” DOE_2. Hence, “[i]n terms of reducing market barriers,” LEEDCo states that “Icebreaker has made significant progress in establishing a permitting protocol that will be the basis for future projects in state waters across the Great Lakes.” *Id.*

In May 2016, Icebreaker “was one of three projects that DOE identified from its offshore wind portfolio that had demonstrated significant progress toward being successfully completed,” DOE_3260, and was therefore “competitively selected for a DOE financial assistance award” under

² IBAs are places of international significance for the conservation of birds, identified by BirdLife International using scientific criteria as sites of particular importance to be taken into consideration by land-use planning and development processes. Some countries have formally recognized IBAs in national legislation. BirdLife is a global partnership of conservation organizations, including Plaintiff American Bird Conservancy, that strives to conserve birds and their habitats. *See* Ex. A (Parr Decl.) at 3–4.

the FOA. DOE_3260–61. Under the Special Terms and Conditions of the financial assistance agreement between DOE and LEEDCo, the government is obligated to pay \$43,999,654.00 of the Project’s overall cost of \$194,174,818.00. *See* DOE_5686. The government’s disbursement of Project funding generally occurs in three phases, with \$3,999,654.00 having been disbursed for Budget Period 1 activities, \$3,000,000.00 disbursed for Budget Period 2 (phase 2) activities, and \$37,000,000.00 obligated towards Budget Periods 3–5 activities. *Id.*

C. DOE’s Financing Commitment Triggered NEPA Review

After selecting Icebreaker to receive federal funding, DOE made a preliminary NEPA determination that an EA was required. DOE_145. DOE noted that “it is reasonably foreseeable that DOE would provide funding for Budget Period 3 activities since this project has been selected to move into Budget Period 3 upon completion of Budget Period 2 tasks and associated milestones.” *Id.* Because “Budget Period 2 activities are considered by DOE to be connected actions to the construction, installation and operation of Project Icebreaker,” the EA would, therefore, evaluate the remainder of activities to occur under the funding agreement. *Id.*

DOE, the Corps, and the U.S. Coast Guard agreed to “be cooperating agencies in [the] preparation of the DOE EA,” with DOE acting as the lead agency. *See* DOE_205. Thereafter, DOE contracted out its obligation to prepare the EA to LEEDCo’s subcontractor, CH2M. *See* DOE_199–202 (Memorandum of Agreement); DOE_204 (confirming subsequent compliance with the agreement).

1. DOE’s Scoping Notice and Responsive Comments

In September 2016, DOE published a scoping notice in the Federal Register declaring its intent to prepare an EA for the Project. DOE_355. In response, DOE received comments from the public, including from Plaintiffs, as well as expert agency comments from FWS and EPA.

DOE_3265.

EPA's comments recommended that DOE "summarize the range of alternative sites considered in project development and the rationale for selection of this proposed site and elimination of other sites." DOE_467. EPA also encouraged DOE "to describe what design and operational factors of this project, once built, will be studied further to inform other possible future offshore wind projects in the Great Lakes." *Id.*

FWS—the agency with special expertise concerning wildlife—expressed serious concerns about the Project itself and DOE's proposed NEPA process. *See* DOE_475–76. FWS noted that it had been involved with the Project since 2008 and had recommended a number of avian and bat surveys be conducted in the Project area to establish a sufficient ecological baseline to inform Project impacts. *See* DOE_475. Although LEEDCo attempted to complete those studies, FWS observed that the results were rendered "uninformative to the proposed project area" by various operational flaws, which precluded FWS from fully assessing the scope of Icebreaker's impacts. DOE_476. FWS said that "[b]ecause of the unknown consequences of developing offshore wind energy in the Great Lakes and the precedent-setting nature of this project, the pre- and post-construction evaluations of potential impacts on wildlife necessarily must meet a standard of rigor greater than wind projects on land." *Id.*

FWS also stressed that multiple criteria under CEQ's NEPA regulations, 40 C.F.R. § 1508.27(b), required that the Project be evaluated through an EIS, not an EA. DOE_481–82. Among other things, FWS noted that the Project's effects were likely to be "highly controversial" due to the "significant public interest in wind power and potential impacts from wind power on wildlife (particularly birds and bats)." DOE_481.

That controversy, FWS explained, will be further exacerbated by the Project's implication of a second significance criterion—the fact that "the extent of impacts to wildlife is uncertain . . ." *Id.* As the expert wildlife agency, FWS said that the Project "presents unique risks to migratory bats and

migratory birds including the bald eagle due to the proximity of the project area to significant migratory bird and bat habitat and concentration areas, specifically the offshore waters of Lake Erie.” DOE_481. This risk, FWS stressed, is compounded by unique features of the Project’s siting—i.e., its open-, freshwater location—which will require “innovative new methods for monitoring bird and bat mortality” to satisfy the Project’s stated role as a “demonstration project” designed to inform future development of wind energy on the Great Lakes and elsewhere. *Id.*

Finally, FWS noted that, because Icebreaker will serve as a benchmark for future offshore projects, it implicates yet another significance factor—the creation of “a precedent for future actions with significant effects or represents a decision in principle about a future consideration.” DOE_482 (quoting 40 C.F.R. § 1508.27(b)(6)). Although the Project has been billed as a small-scale pilot project, FWS observed that “it is not unreasonable to expect” that the Project’s financial viability would cause the expansion of the Project itself while simultaneously serving “as a model for other full-scale projects elsewhere in the Great Lakes and other areas in the U.S.” *Id.* For this reason alone, FWS said that “an EA is inadequate to fully address the potentially significant, precedent-setting aspects of this project.” *Id.* Rather, FWS concluded, the Project “warrants an EIS-level analysis . . . to document the significance of the proposed project on fish and wildlife resources.” *Id.*

2. Ignoring FWS’s Warnings, DOE Pushed Forward with a Draft EA

Notwithstanding the calls from FWS and others to prepare an EIS, DOE published its Draft EA for comment on August 16, 2017. DOE_1041. As relevant here, the Draft EA concluded that the relatively small size of the Project (as compared to some land-based wind projects) and “the low use of offshore environments within the central Lake Erie basin by birds and bats” meant “the

collision risks for the categories of birds and bats that may use the Proposed Project area are low” and that “potential impacts to birds and bats would be considered minor.” DOE_1143–44.³

The estimated utilization of the Project area by birds and bats was “based on available data collected primarily *outside of the project area*,” DOE_2838 (emphasis added), and relied on the same studies FWS had previously rejected as “uninformative” in its comments on the Project scoping notice. *See* DOE_476; *see also* DOE_1123–24 (summarizing bird and bat studies relied upon in the Draft EA).

With respect to alternatives, the Draft EA analyzed only two—the Proposed Action (i.e., funding the Project as described in the Draft EA) and the No-Action Alternative (i.e., declining to authorize the federal expenditure where “[a]ny potential beneficial or adverse effects to the physical, natural, or socioeconomic resources would not be realized”). DOE_1079. Although the Draft EA includes an abbreviated discussion of alternative designs considered *by LEEDCo* during the planning phase, DOE did not compare the relative environmental impacts of those designs, nor did it examine whether those designs would fulfill the federal purpose and need driving the Project. *See* DOE_1079–85. Indeed, with respect to alternative turbine layouts, DOE conceded that “[e]nvironmental and cost factors *were not analyzed*.” DOE_1084 (emphasis added).

In its less than three-page discussion of cumulative impacts, the Draft EA concluded that “cumulative impacts to birds and bats would be expected to be negligible” because “no other offshore projects were identified and offshore activities from the Proposed Project would have negligible impacts to birds and bats” DOE_1201. The cumulative impacts section of the Draft

³ The Draft EA’s conclusions were also ostensibly founded on its assessment that the “density of nocturnally migrating birds” was between 2.13 and 2.72 times “higher over land than over water” during spring and fall migrations. DOE_1123; *see also* DOE_1145. That conclusion, FWS observed, is a non sequitur, as it fails to account for the fact there are still “likely to be millions of individual birds crossing Lake Erie during spring and fall migration each year” DOE_2842.

EA, *id.*, fails to mention either the Project’s classification as a “demonstration project” meant to catalyze future wind energy development on Lake Erie, *see* DOE_5712, or LEEDCo’s well-documented intent to expand the Project itself, *see, e.g.*, DOE_482.

3. Expert Comments Exposed Severe Flaws in DOE’s Analysis

DOE received dozens of comment letters on the Draft EA, including from FWS, the Ohio Department of Natural Resources (“ODNR”), and EPA. DOE_3266. FWS’s comments once again set forth a detailed and deeply critical assessment of methodological flaws in DOE’s analysis of impacts to birds and bats. *See* DOE_2837–918. According to FWS, the Draft EA suffered from three major flaws that obscured the Project’s impacts on birds and bats: (1) its discussion of the environmental baseline misrepresented the importance of the Project area to birds and bats; (2) its reliance on collision and mortality data from land-based wind turbines underestimated the number of birds that will be affected by the Project; and (3) DOE’s failure to condition funding on a concrete plan to assess the first two concerns meant the Project will fail to satisfy its stated aim as a demonstration project that can meaningfully inform future offshore wind development. DOE_2838.

First, FWS noted that “[t]he conclusions reached in the Draft EA regarding potential impacts to birds and bats are based on available data collected primarily outside of the project area.”⁴ *Id.* Even using the underinformed projections, however, DOE’s portrayal of bird and bat presence in the affected area is “misleading,” according to FWS. DOE_2839. Contrary to DOE’s assertion that “migrants tend to concentrate along coastlines and avoid flying over large water bodies, such as Lake Erie,” DOE_1126, FWS observed that the same studies relied upon by DOE in fact demonstrate that “large numbers of migrants do fly over water bodies,” including Lake Erie.

⁴ The lack of site-specific data for this pathbreaking project is particularly striking given that FWS has formally called for such data to be collected on at least six separate occasions since early 2009. DOE_2838; *see also* DOE_2854; DOE_2863; DOE_2867; DOE_2878; DOE_2884; DOE_2896.

DOE_2839; *see also id.* (noting that “nocturnal migrants flew *predominantly* to the north and northeast from the coast of Erie County, Ohio during spring” and that “[o]verwater flight has been observed *at all* Great Lakes sites reported in these publications.” (emphases added)).

FWS also explained that the Draft EA’s mischaracterization of avian abundance is further complicated by the fact that the chosen mode of analysis, “next-generation radar” (“NEXRAD”) analysis, fails to account for many birds migrating through the Project area at lower altitudes.⁵ DOE_2840. That methodological limitation, according to FWS, precluded the detection of a significant quantity of birds that migrate through the area. *Id.* (describing recent FWS study results which “indicate that densities often increase as altitude decreases, especially and often significantly at lower altitudes (50-150m) that include the rotor-swept zone.”); *see also id.* (“Unpublished data collected on Lake Erie in Cleveland this fall by [FWS] . . . using avian marine radar indicates large numbers of bats and birds migrating across the lake during fall, often within or near the rotor-swept zone.”).⁶

With respect to its second concern—i.e., DOE’s assumptions regarding the interaction of individual birds and bats with the Project—FWS noted that the Draft EA relied entirely on estimates “generated using land-based wind projects in the U.S. and Canada.” DOE_2838. The

⁵ As explained by DOE, NEXRAD analysis relies upon examining “weather radar data for the purpose of assessing nocturnal bird and bat migration.” DOE_3333. This methodology requires researchers to separate “targets that are most likely to be birds (and/or bats) from other radar targets,” and to make numerous assumptions “regarding wind speed and direction, and movement characteristics of radar targets.” *Id.* Unlike more sophisticated study methods, NEXRAD analysis cannot “sample the entire altitudinal ranges of migrants moving through the night sky,” and it “cannot detect targets that are close to the ground except at very close range.” *Id.*

⁶ To demonstrate the flaws in DOE’s conclusions, FWS submitted preliminary data it collected near Cleveland using more sophisticated sampling technology that showed “a substantial amount of migratory activity, occurring in part from lake crossing movements, with substantial migrant traffic within or near the rotor-swept zone.” *See* DOE_2899–2918. (FWS, *Avian Radar Preliminary Data from Cleveland, Ohio, Early Fall 2017* (Oct. 2, 2017)).

Draft EA's quantification of effects, therefore, rests on an assumption "that impacts at onshore wind facilities in the U.S. and Canada are relevant predictors of impacts to birds and bats at offshore wind developments in Lake Erie"—i.e., an assumption that "may or may not be accurate."

DOE_2839. Further, FWS explained that the Draft EA's mortality projection for Icebreaker "fails to account for the observations that birds will sometimes seek man-made structures to land on while migrating over large bodies of open water such as oil platforms or even freighters," likely due to "migrants encountering adverse weather conditions during the crossing." DOE_2841–42.

Finally, with respect to the lack of mandatory pre- and post-construction monitoring, FWS stressed that "[b]ecause of the potential risk of bird and bat mortality, and because this project is designed to be a demonstration project to evaluate offshore wind installation in the Great Lakes, pre-construction monitoring to inform risk and post-construction monitoring to assess actual impacts are necessary components of the project that must be implemented." DOE_2839.

Given FWS's concerns regarding the lack of reliable data and the implication of numerous significance criteria under CEQ's regulations, FWS once again urged DOE to prepare an EIS. DOE_2844, DOE_2845. FWS also observed that DOE's Draft EA is "missing two additional components that should be found in a NEPA document"—specifically, an evaluation of a reasonable range of alternatives and a sufficient cumulative impacts analysis. *See* DOE_2844–45. As to alternatives, FWS encouraged DOE to examine "an alternative where a complete set of detailed pre- and post-construction studies for impacts to birds and bats are presented and required, along with a robust adaptive management plan to address impacts, should they be greater than anticipated." DOE_2844. Concerning cumulative impacts, FWS noted that one of DOE's principal aims in funding Icebreaker is to promote the creation of "a robust U.S. Offshore Wind Energy Industry" in Lake Erie, meaning that "one of the cumulative effects of funding the project could be the accelerated development of utility-scale wind power in the offshore waters of Lake Erie,"

DOE_285; however, the Draft EA’s “Cumulative Impacts section does not anticipate or analyze this reasonable outcome.” *Id.* Such analysis is crucial, FWS said, because it “would clearly help eliminate uncertainties and mitigate risk, as per the goals of funding the demonstration project” *Id.*

FWS was not alone in criticizing the Draft EA’s analysis. For example, ODNR—the state agency with jurisdiction over wildlife—echoed FWS’s concerns that “data to support site-specific conditions” is necessary “to evaluate the risk of the project to bird and bat species.” DOE_2822. Yet, “[v]ery little information about birds and bats at the project site has been collected to-date and conclusions drawn from [previously collected] data may be misleading.” *Id.*

In addition, EPA renewed its calls for a more robust analysis of alternatives, noting that “to produce a defensible NEPA record, particularly since the Proposed Project is a demonstration project,” DOE should describe the other candidate projects that were considered for these same funds and explain “the criteria which led to the selection of the LEEDCo project.” DOE_2829.

4. DOE’s Final EA and FONSI Disregarded Expert Criticism

DOE published its Final EA in September 2018. *See* DOE_3248. Although DOE included some token changes to its discussion of bird and bat abundance in the Project area, the Final EA relied on the same methodological errors criticized by FWS and others to affirm its preconceived conclusion that “potential impacts to bird and bat species would be considered minor and would not result in population-level effects to any species.” DOE_3356. The Final EA also enshrined the Draft EA’s consideration of alternatives, analyzing only two: the proposed action, and the no-action alternative. DOE_3267; DOE_3289. Likewise, the Final EA left unchanged DOE’s consideration of cumulative impacts, stating that “[b]ecause there are no proposals for future wind projects in Lake Erie, no proposed locations or turbine numbers or types to be analyzed, DOE has determined that there are no wind energy projects beyond this Proposed Project within the onshore, nearshore, or offshore environment of Lake Erie or the other Great Lakes.” DOE_3411–12.

In its FONSI, DOE purported to consider the Project's impacts in relation to the significance criteria in CEQ's implementing regulations, 40 C.F.R. § 1508.27(b). With respect to the "highly controversial" factor, the only aspect of the Project the FONSI addressed was "DOE's use of bird and bat data that was not specific to the Proposed Project Area." DOE_5576. The agency rejected the numerous comments it received on that issue by stating, without explanation, that it "did not rise to a substantial dispute." *Id.* As to the inherent uncertainty of the Project's effects, the FONSI states that "potential impacts associated with construction and operation of the project are understood and are largely similar to land-based projects in the Great Lakes region, the existing offshore wind project off the coast of Rhode Island, and offshore wind projects that have been deployed in Europe," *id.*—directly contradicting comments DOE received from FWS, *see* DOE_2839–42. Thus, the FONSI concluded that "[t]here is a low probability of highly uncertain effects or unique or unknown risks resulting from the Proposed Project." DOE_5576.

Although the FONSI acknowledged that "[s]ome public and agency comments expressed that DOE should consider the Proposed Project precedent setting for commercial scale offshore wind development in Lake Erie," it summarily dismissed those concerns by stating that it "is not establishing a precedent or making a decision with respect to any future offshore wind project." DOE_5576. DOE also rejected concerns about future "actions with individually insignificant but cumulatively significant impacts," 40 C.F.R. § 1508.27(b)(7), saying "that industry goals to further develop offshore wind in this region are speculation at this point, which does not establish a reasonably foreseeable future project that could be analyzed." DOE_5577.

5. DOE's Responses to Comments Revealed Further Flaws in its Analysis

In an appendix to the Final EA, DOE published a "Summary Table of Responses to Draft EA Comments," DOE_3476, as well as a separate "Summary Response to U.S. Fish and Wildlife Comments on the Draft Environmental Assessment," DOE_3495. Responding to criticism over the

scope of its alternatives analysis, DOE said that “[t]he Proposed Action does not involve unresolved conflicts concerning alternative uses of available resources,” *id.*, and therefore it was under no obligation to “study, develop, and describe appropriate alternatives,” DOE_3479 (quoting 42 U.S.C. § 4332(E)). DOE provided no further explanation of how it reached this conclusion. *See id.*

In response to FWS’s repeated calls for the preparation of an EIS due to the Project’s significance, DOE said that it had “coordinated with [FWS] to effectively address the comments provided on the Draft EA,” and through that coordination “DOE and [FWS] came to a general understanding that an EA is the appropriate level of NEPA review for the Proposed Action.” DOE_3478. A summary of that “coordination” appears in the record as an email exchange between two officials from DOE and FWS. *See* DOE_2919. Contrary to DOE’s assertion, the email exchange indicates that FWS and DOE agreed to disagree. *See* DOE_2920 (“DOE does not agree with [FWS’s] comments with respect to the NEPA process, specifically where [FWS] suggests that an EIS is the most appropriate level of NEPA review/documentation,” although “[FWS] generally understands DOE’s approach to the NEPA process for Project Icebreaker.”).

D. DOE’s Evaluation of the Project’s Impact on Historic Resources Was Opposed By The Ohio Historic Preservation Office

Concurrent with the NEPA process, DOE consulted with the Ohio State Historic Preservation Office (“OHPO”) over Icebreaker’s potential impacts to historic resources, as required by the National Historic Preservation Act (“NHPA”), 54 U.S.C. §§ 300101–307108. DOE_938. DOE identified four historic sites listed on the National Register of Historic Places that would have uninterrupted views of the Project—the Universal Company Dock and Warehouse, USS COD, U.S. Coast Guard Cleveland harbor station, and Cleveland East and West Pierhead Lights. DOE_939. DOE concluded, however, that the Project would “not diminish the integrity of any of these properties[’] significant historic features,” and therefore, “no historic properties would be adversely

affected by its action of funding the Proposed Project.” DOE_940. DOE sought OHPO’s concurrence in that determination by letter dated June 29, 2017. *Id.*

OHPO refused to concur and said that the Project would change “the character of the properties’ settings that contribute to their historic significance and . . . introduce visual elements that are out of character with the historic setting of the historic properties.” DOE_944 (citing 36 C.F.R. § 800.5(a)(2)(v)). OHPO therefore encouraged DOE “to develop and evaluate project alternatives that would avoid, minimize, or mitigate the adverse effect on historic properties,” and requested that the Advisory Council on Historic Preservation (“ACHP”) be notified of the disagreement. *Id.*

On January 18, 2018, DOE notified ACHP of the dispute. DOE_985. Upon completing its review, ACHP questioned whether DOE had adequately considered “effects that are reasonably foreseeable and cumulative in nature.” DOE_1007. ACHP encouraged DOE to “clarify how the construction of these wind turbines may lead to additional future development, which could be considered reasonably foreseeable and result in a cumulative effect to the identified historic properties.” *Id.*

In response to ACHP, DOE “acknowledge[d] that LEEDCo’s hope is that this demonstration project could support future wind development in Lake Erie,” but dismissed that desire as “speculative” because “there are no specific plans for any future projects.” DOE_1009. Hence, DOE concluded it was relieved from analyzing any potential expansion of wind energy on Lake Erie. *Id.*

OHPO continued to object, observing that the Project “has been specifically designed to demonstrate the feasibility of wind energy in Lake Erie so as to promote the development of wind energy in Lake Erie and the Great Lakes.” DOE_1019. “In short,” it explained, “this undertaking is the demarcation line between a Lake Erie waterscape devoid of wind turbines and a Lake Erie

waterscape blanketed with offshore wind farms.” *Id.* Thus, OHPO stated, “it is wholly reasonably foreseeable that this undertaking will result in cumulative adverse effects from the construction of additional wind turbines in Lake Erie even if no federal or state agencies are currently aware of any such wind farm projects.” *Id.* In light of the unresolved dispute, ACHP issued a “disputed effects finding,” DOE_1012, which DOE ultimately affirmed without conducting any of the analyses requested by OHPO. DOE_5476. The Final EA, therefore, continued to maintain that the “Project would have no adverse effect on historic properties and would not diminish the integrity of the properties’ significant historic features.” DOE_3390.

E. The Corps’ Section 404 Permit Process

Because the Project’s construction will discharge dredged or fill material into waters of the United States, LEEDCo had to obtain a CWA Section 404 from the Corps, USACE_192, which it applied for on August 31, 2017, USACE_3190. In reviewing the merits of LEEDCo’s application, the Corps relied extensively on DOE’s Final EA, adopting in full DOE’s analysis to satisfy the Corps’ “public interest review.” *See* USACE_224–27. Based on those findings, as well as its own Memorandum for Record, USACE_81, the Corps determined that the Project as presented in the Final EA complied with the 404(b)(1) Guidelines and “is not contrary to the public interest.” USACE_131. The Corps issued a permit to LEEDCo on March 13, 2019. USACE_1.

ARGUMENT

I. STANDARD OF REVIEW

Under the APA, the Court “shall . . . set aside” an agency’s decision if it is “arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law” or was adopted “without observance of procedure required by law.” 5 U.S.C. § 706(2)(A), (D). Although this standard is deferential, “[d]eference, of course, does not mean blind obedience.” *Garvey v. Nat’l Transp. Safety Bd.*, 190 F.3d 571, 580 (D.C. Cir. 1999). Rather, courts must “perform a searching and

careful inquiry into the facts underlying the agency’s decision” to “ensure that the [agency] has examined the relevant data and has articulated an adequate explanation for its action.” *Am. Farm Bureau Fed’n v. EPA*, 559 F.3d 512, 519 (D.C. Cir. 2009) (internal quotation marks and citation omitted).

II. **DOE VIOLATED NEPA AND ITS IMPLEMENTING REGULATIONS BY FAILING TO PREPARE AN EIS**

The D.C. Circuit’s “long-established standard” for reviewing “[a]n agency decision that an EIS is not required” obligates courts to determine whether the agency has “ma[d]e a convincing case for its finding [of no significant impact].” *Grand Canyon Tr. v. FAA*, 290 F.3d 339, 340–41 (D.C. Cir. 2002) (citation omitted). Determining whether a project has significant impacts requires the agency to consider the project’s “‘context’ (region, locality)” and its “‘intensity’ (‘severity of impact’),” as measured by the significance criteria set forth in 40 C.F.R. § 1508.27. *Nat’l Parks Conserv. Ass’n v. Semonite* (“NPCA”), 916 F.3d 1075, 1082 (D.C. Cir. 2019) (quoting 40 C.F.R. § 1508.27). Where a proposed project implicates even one of those intensity criteria, it “may be sufficient to require development of an EIS.” *Id.* (citation omitted). As the record here makes clear, it is impossible to conclude that DOE has “ma[d]e a convincing case for its finding [of no significant impact].” *Grand Canyon Tr.*, 290 F.3d at 340-41.⁷

Before turning to the merits, we note that neither DOE nor the Corps is entitled to deference in its evaluation of the significance of impacts to resources outside their jurisdiction. As

⁷ Because Plaintiffs ABC and BSBO have members with cognizable aesthetic, personal, and professional interests in observing wildlife that are dependent on areas in and around the Project’s proposed location for all or part of their lifecycle, including for migration, and those interests are impaired by DOE’s decision to fund and the Corps’ decision to permit Icebreaker, Plaintiffs have standing to pursue these claims. *See* Ex. A (Decl. of Michael Parr); Ex. B (Decl. of Gemma Radko); Ex. C (Decl. of Ethan Kistler); *Hunt v. Wash. State Apple Advertising Comm’n*, 432 U.S. 333, 340–45 (1977) (setting forth the elements of Article III standing for organizations representing the interests of their members).

the D.C. Circuit has explained, “because NEPA is addressed to all federal agencies and Congress did not entrust administration of NEPA to [any one agency],” “the court owes no deference to [DOE’s] interpretation of NEPA or the CEQ regulations” in “decid[ing] whether an action is significant enough to warrant preparation of an EIS.” *Id.* at 341–42 (citations omitted). By comparison, “[w]hen an agency is evaluating scientific data within its technical expertise, an extreme degree of deference to the agency is warranted.” *Nat’l Comm. for the New River v. FERC*, 373 F.3d 1323, 1327 (D.C. Cir. 2004) (quotation marks and citation omitted).

A. The Context of The Project Amplifies the Need for More Rigorous Review

The CEQ regulations require agencies to analyze the significance of a proposed action “in several contexts such as society as a whole (human, national), the affected region, the affected interests, and the locality.” 40 C.F.R. § 1508.27(a). Icebreaker is one of those rare federal projects that implicates numerous contexts. It is slated for construction in the heart of the Lake Erie Central Basin IBA, an area witness to a stunning congregation of waterfowl that use these waters during various times of the year. DOE_3333; *see also* Ex. A (Parr Decl.) at 3–4. A significant portion of the Red-breasted merganser’s worldwide population, roughly “one-quarter of a million birds,” may be found in the Lake Erie Central Basin IBA alongside a multitude of other waterfowl. *See* Ex. A at 4; *see also* DOE_2876. The Lake Erie Central Basin IBA and the neighboring Cleveland Lakefront IBA have also been designated as IBAs due to their prominence as a key flyway during spring and fall migration, with “millions of individual birds” passing through these areas each year on their way to and from their breeding grounds in northern Canada and beyond. DOE_2842. An ill-sited wind energy project in the midst of these IBAs, therefore, has the potential to affect both local populations of birds in Lake Erie itself and migrant populations traveling as far south as South America and as far north as the Arctic Circle. *See* DOE_2856–57

Additionally, because Icebreaker has been designed as a “demonstration project” meant “to inform future offshore wind development in the Great Lakes and elsewhere,” DOE_2844, the information gathered from the Project will shape how risks to birds and bats are assessed for decades to come. DOE_2852 (“The manner in which this project is evaluated and permitted will be a model for future similar projects.”). Thus, Icebreaker’s significance must be measured not only by its immediate impact on birds and bats, but also by how its quantification of impacts shapes the acceptable risk level of future offshore wind development. *See* DOE_2854 (FWS explaining that “the question is not just, ‘is *this* project ‘low’ risk to birds?’ Rather we want to understand larger issues such as, how much risk to birds do offshore turbines present relative to land-based turbines (e.g., how much mortality occurs on a per-MW basis), and how do birds respond to offshore turbines in the Great Lakes?” (emphasis added)).

B. The Record Reveals the Significance of the Project and The Need for An EIS

1. The Possible Effects of the Project Are Highly Uncertain and Involve Unique or Unknown Risks

The CEQ regulations require an EIS where the possible effects of the action “are highly uncertain or involve unique or unknown risks.” 40 C.F.R. § 1508.27(b)(5). Relevant precedent “suggest[s] that this factor is implicated when an action involves new science, or when an action’s impact on a species is unknown.” *WildEarth Guardians v. Zinke*, 368 F. Supp. 3d 41, 82–83 (D.D.C. 2019) (citations omitted).

The record in this case is replete with examples of the highly uncertain effects of the Project and the unique or unknown risks it entails. FWS and others have repeatedly stressed that “there is *great uncertainty* as to how birds and bats are using the airspace in and around the project area, and how many individuals may be exposed to and strike the proposed turbines over the life of the project.” DOE_2845 (emphasis added); *see also* DOE_2822 (ODNR commenting that “[v]ery little information about birds and bats at the project site has been collected to-date and conclusions

drawn from [existing] data may be misleading”); DOE_2831 (EPA questioning whether sufficient “baseline information” exists concerning “bird, bat, and threatened or endangered species to make a determination of minor impact”). Indeed, since 2009, FWS has criticized LEEDCo’s reliance on NEXRAD data to remotely estimate species abundance in the Project footprint. *See* DOE_2895–98. As FWS and others have explained, “the coarse resolution of NEXRAD data” makes it “impossible to use this data to determine if birds and bats are flying within the rotor-swept zone or above it.” DOE_2840; *see also* DOE_2968 (Plaintiffs’ comments stressing that, “[s]imply put, NEXRAD, is not capable of estimating numbers or risk over Lake Erie”).

This methodological shortcoming has prompted FWS, ODNR, and Plaintiffs to repeatedly call on LEEDCo and DOE to collect “site-specific information on the flight height and density of birds using the rotor-swept airspace.” DOE_2896; *see also* DOE_2838 (citing six occasions over eight years where FWS had formally urged “[s]tudies of bird and bat use of the specific project area”); DOE_2822 (“It is the position of ODNR to have data to support site-specific conditions in order to evaluate the risk of the project to bird and bat species.”). Yet, as FWS observed, DOE has still not “accurately determine[d] numbers and altitudes of nocturnal migrants passing over the construction site which would both help inform the potential for interactions and fatalities and could also determine whether birds and bats are displaced by turbines.” DOE_2845. DOE’s reliance on this faulty methodology carried through to the Final EA and FONSI. DOE_5576 (conceding an absence of site-specific data); *see also* DOE_3333 (describing 2017 surveys commissioned by LEEDCo and DOE that continue to utilize remote NEXRAD analysis).

The “great uncertainty” over bird and bat abundance in the Project area, DOE_2845, is compounded by the lack of information about how individual birds and bats will interact with the Project. As FWS explained, the FONSI’s conclusion that “potential impacts associated with construction and operation of the project are understood and are largely similar to land-based

projects in the Great Lakes region,” DOE_5576, is predicated on “the assumption that conditions and migrant behavior are the same over land and over water”—an assumption which “may not be accurate.” DOE_2842; *see also* DOE_2845 (FWS stating that “[b]ird and bat interactions with wind turbines are not well understood and this is especially true for off-shore facilities.”). Given that “large inland water bodies such as the Great Lakes have unique hydrological, biotic, and ecological properties,” DOE_2851, there are serious questions about whether the Project will actually *attract* species under various conditions, including: (a) during migration, *see* DOE_2841–42 (observing that “birds will sometimes seek man-made structures to land on while migrating over large bodies of open water” likely due to “adverse weather conditions during the crossing”); DOE_2877 (noting that aspects of the Project “could increase incidences of bird collisions by increasing the number of birds in the area”), and/or (b) during the winter months when the Project opens areas of water in an otherwise frozen lake, which may attract birds seeking prey, *see* DOE_2855 (FWS observing that open waters during the winter may attract waterfowl, which attract predatory birds such as bald eagles); DOE_478 (same); DOE_2823 (ODNR expressing concerns over the “potential impact to the local ice regime” and whether “the turbines tend to create an ice-freeze zone of lake water that would be attractive to birds”).

These gaps in available information are more than academic. Because, by FWS’s estimate, there are “likely to be millions of individual birds crossing Lake Erie during spring and fall migration each year, and a proportion of these are flying at altitudes within the rotor-swept zone,” DOE_2842, the Project may become a significant source of mortality. *See* DOE_2877–78. While the FONSI characterizes FWS’s comments as conceding that “the small size” of the Project means “the total impacts of the project on birds and bats will be minor,” DOE_5576, a cursory review of FWS’s comments refutes that claim. *See* DOE_2844–45 (FWS comments concluding that, in its professional opinion, the uncertainty of possible effects necessitates an EIS). In fact, the same FWS

comment letter on which DOE relies says that “the available data” prevents FWS from “estimat[ing] how many [songbirds] might be crossing through the project area while flying at altitudes within the rotor-swept zone, and thus that might be at risk of collision with the turbines.” DOE_2842; *see also* DOE_2841 (“Acoustic monitoring efforts to date have been inadequate for assessing bat use of the project airspace and risks to bats.”).

In sum, FWS determined that the absence of data on species abundance within the Project’s footprint prevents DOE from concluding that the Project’s “impacts would be minor,” DOE_5575. *See, e.g.*, DOE_2853 (rejecting the blanket assertion that the size of the Project will result in limited impacts, and stating that FWS “do[es] not believe that the data currently available provides conclusive evidence of low risk based on the level of bird use”). The Court should defer to FWS’s expert determination concerning the high degree of uncertainty over the scope of the Project’s impacts to birds and bats. *See, e.g., Nat’l Comm. for the New River*, 373 F.3d at 1327 (“When an agency is evaluating scientific data within its technical expertise, an extreme degree of deference to the agency is warranted.” (quotation marks and citation omitted)).

The need for an EIS is further bolstered by the persistence of substantial uncertainty over how the Project will collect the data on impacts to birds and bats—i.e., how the Project will satisfy one of its fundamental objectives as defined by DOE—“understanding and mitigating environmental risks of offshore wind development,” DOE_3260. Indeed, “one of the purposes of a small-scale demonstration project is to assess the impacts of the project and be able to extrapolate those impacts to a larger scale.” DOE_2859; *see also* DOE_4506 (LEEDCo subcontractor explaining that “[c]ollision monitoring remains one of the most important objectives of this small demonstration project due to the importance of characterizing bird/bat turbine-related fatality rates in the offshore environment of Lake Erie, and in the spirit of generating the greatest scientific value as a [DOE] funded demonstration project”). As FWS noted, this necessarily requires the collection

of “site specific data to understand the baseline use of the project area,” which can then be compared “with post-construction data to elucidate what the actual impacts are, and to be able to extrapolate those conclusions to a larger project.” DOE_2854. Due to the Project’s proposed location, however, FWS explained that “conventional post-construction mortality monitoring . . . will be impossible to implement,” meaning that “innovative new methods for monitoring bird and bat mortality in the offshore environment will have to be developed and implemented, and their effectiveness is unknown.” DOE_482.

Despite FWS and others having identified this aspect of the Project as “critically important,” DOE_2844; *see also* DOE_4506, “[m]ethods for post-construction fatality studies are only conceptual at this point, and will require substantial time and effort to develop and validate,” according to FWS and ODNR. DOE_2845; *see also* DOE_2821 (ODNR stating that “[s]pecific methodology has not yet been determined for some important elements at the project site including: bat activity in the proposed rotor-swept zone; nocturnal movement of bird and bats; and post-construction monitoring protocols for bird and bat mortality.”). Accordingly, this element of uncertainty alone—one that goes to the heart of the Project’s purpose, DOE_3263, and to be resolved, obligates LEEDCo to develop and rely on untested methodologies that were not disclosed to the public or examined as part of the NEPA process, DOE_2844–45—triggers the need for an EIS. *See WildEarth Guardians*, 368 F. Supp. 3d at 82–83 (the highly uncertain “factor is implicated when an action *involves new science*” (emphasis added) (citations omitted)); *see also Found. On Econ. Trends v. Heckler*, 756 F.2d at 153 (finding experiment on the untested release of “genetically engineered organisms in the open environment” was highly uncertain, regardless of the size of the experiment).

2. Icebreaker Satisfies the D.C. Circuit's Test for a Highly Controversial Project

The CEQ regulations require preparation of an EIS where “the effects on the quality of the human environment are likely to be highly controversial.” 40 C.F.R. § 1508.27(b)(4). The “controversy” required under NEPA “refers to cases where a substantial dispute exists as to the size, nature, or effect of the major federal action rather than to the existence of opposition to a use.” *Town of Cave Creek v. FAA*, 325 F.3d 320, 331 (D.C. Cir. 2003) (citation omitted). Courts have found a controversy sufficient to require preparation of an EIS where “scientific or other evidence . . . reveals flaws in the methods or data relied upon by the agency in reaching its conclusions.” *Standing Rock Sioux Tribe v. U.S. Army Corps of Eng’rs*, 255 F. Supp. 3d 101, 128 (D.D.C. 2017); *see also Nat’l Wildlife Fed’n v. Norton*, 332 F. Supp. 2d 170, 185 (D.D.C. 2004) (“Such a controversy exists where [an agency] is presented with scientific evidence specifically evaluating the environmental effects of the project or calling into question the adequacy of the EA.”).

In a seminal case, the D.C. Circuit recently shed further light on the type of controversy that “trigger[s] the need to produce an EIS.” *NPCA*, 916 F.3d at 1082. There, in response to an EA the Corps prepared for a transmission line that would cross near historic Jamestown, federal and state agencies and non-governmental organizations with specialized knowledge about historic resources raised concerns about “serious flaws in the Corps’s methodologies” assessing likely impacts. *Id.* at 1080. The Court ruled that the project was “highly controversial” within the meaning of 40 C.F.R. § 1508.27(b)(4) because the agency’s “assessment of the scope of the Project’s effects ha[d] drawn consistent and strenuous opposition, often in the form of concrete objections to the Corps’s analytical process and findings, from agencies entrusted with preserving historic resources and organizations with subject-matter expertise.” *NPCA*, 916 F.3d at 1086. In reaching that holding, the D.C. Circuit rejected the Corps’ argument that it had discharged its obligation by “acknowledg[ing] and try[ing] to address concerns raised during the NEPA process by, for example, instructing [the

project proponent] to revise its analyses to address the shortcomings identified by commenters.” *Id.* at 1085. That argument, the court explained, “misses the point”: “[t]he question is not whether the Corps *attempted* to resolve the controversy, but whether it *succeeded*.” *Id.* at 1085–86 (emphases added).

Here, the *NPCA* “test for ‘controversy’ fits like a glove.” *Id.* at 1083. FWS, ODNR, and Plaintiffs—“highly specialized governmental agencies and organizations,” *id.* at 1085—consistently and strenuously objected to DOE’s methodologies in assessing the Project’s likely impacts. *See supra* pp. 22–26. Specifically, FWS and ODNR criticized DOE’s reliance on NEXRAD data and its inability to assess species abundance in the Project area, both generally and within the rotor-swept zone. *See id.* Far from reconciling that conflict, however, the Final EA continued to rely on the very same methodology and data criticized by the expert agencies, *see* DOE_3357, while simultaneously conceding that vulnerability of birds in the Project area “may be related to overall abundance of the species in the area,” and the “amount of time spent flying within rotor swept altitudes.” *Id.*; *see also* DOE_5576 (rejecting, without explanation, concerns over reliance on NEXRAD data as “not ris[ing] to a substantial dispute”). Accordingly, there continue to be “flaws in the methods or data relied upon by [DOE] in reaching its conclusions.” *Standing Rock Sioux Tribe*, 255 F. Supp. 3d at 128.

The same expert agencies (and Plaintiffs) also expressed serious reservations over DOE’s estimates of individual collisions and overall mortality, given that “[b]ird and bat interactions with wind turbines are not well understood and this is especially true for off-shore sites.” DOE_2845; *see also* DOE_2851 (FWS commenting that “[n]ot only are common techniques for quantifying mortality impossible to implement (e.g. carcass surveys), [but] large inland water bodies such as the Great Lakes have unique hydrological, biotic, and ecological properties compared to sea and land installations, for which there is no data and no precedent.”). And, despite FWS’s warning that DOE should not assume the level of mortality caused by the Project will be comparable to land-based wind projects, DOE_2839, the FONSI arbitrarily claims that “potential impacts associated with

construction and operation of the project are understood and are largely similar to land-based projects in the Great Lakes region” DOE_5576.

Further, the Project’s ability to measure impacts post-construction remains an unresolved controversy. DOE has consistently stated that one of Icebreaker’s core purposes is to “help eliminate uncertainties,” and “mitigate risks.” DOE_3263; *see also id.* (DOE stating that the Project “would provide performance, engineering, environmental monitoring, operations, and cost data to further the existing knowledge base for the benefit of the wind industry, which will further efforts to overcome [] the key challenges in the development and deployment of offshore wind technology.”). As such, post-construction monitoring “is a necessary component of the project that this EA is evaluating.” DOE_2844; *see also* DOE_4506 (LEEDCo subcontractor stating that post-construction monitoring is “one of the [Project’s] most important objectives”). However, when DOE published the Final EA, a post-construction monitoring plan had not even been designed, *see* DOE_5570; DOE_4506–08, let alone commented upon by the public or FWS as a part of the NEPA process. *See* 40 C.F.R. § 1500.1(b) (“NEPA procedures *must* insure that environmental information is available to public officials and citizens *before* decisions are made and before actions are taken.” (emphases added)).

Although DOE has stated that “federal funding would be contingent on LEEDCo implementing [post-construction] monitoring protocols,” DOE_3478, that fact does not “resolve” the controversy such that DOE can avoid an EIS. *See Standing Rock Sioux Tribe v. U.S. Army Corps of Eng’rs*, 440 F. Supp. 3d 1, 21 (D.D.C. 2020) (ruling that the Corps failed to resolve a controversy over how winter conditions could affect the timeliness of responses to oil spills, by asserting that “full-scale winter/ice exercises” would be studied and made “a condition to the [permit]” because the EA did “not currently take that kind of data into account”).

The vigorous controversy between FWS and DOE is not the only one that remains unreconciled. As shown above, *supra* pp. 17–19, OHPO—the state agency with specialized knowledge about Ohio’s historic resources—objected to DOE’s evaluation of visual impacts on properties protected under the NHPA, DOE_943–44. OHPO urged DOE to “develop and evaluate project alternatives that would avoid, minimize, or mitigate the adverse effect on historic properties that will result from this project.” DOE_944. DOE refused to conduct this analysis, and ACHP at DOE’s urging rendered a “disputed effects finding.” DOE_1012. By definition, therefore, this substantial controversy over the Project’s “indirect, adverse visual effect[s],” DOE_944, on historic resources remains unresolved. *See* DOE_1021–22 (OHPO affirmation of disputed effects).

In sum, myriad aspects of the Project “ha[ve] drawn consistent and strenuous opposition, often in the form of concrete objections to [DOE]’s analytical process and findings, from agencies . . . and organizations with subject-matter expertise.” *NPCA*, 916 F.3d at 1086. Since these controversial aspects of DOE’s analysis remain unreconciled, an EIS is required. *Id.* at 1085–86.

3. The Precedential Nature of the Project Cannot Be Overstated

The CEQ regulations require the preparation of an EIS for any action that “may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.” 40 C.F.R. § 1508.27(b)(6). Although the D.C. Circuit has not explored this criterion in depth, other courts have held that it is triggered where the “approval of a single action will establish a precedent for other actions which may cumulatively have a negative impact on the environment” *Anderson v. Evans*, 371 F.3d 475, 493 (9th Cir. 2004); *see also Sierra Club v. Marsh*, 769 F.2d 868, 879 (1st. Cir. 1985) (Breyer, J.) (holding that a project’s potential to lead to additional development in the immediate surroundings implicates 40 C.F.R. § 1508.27(b)(6)); *cf.* CEQ, Forty Most Asked Questions Concerning CEQ’s National Environmental Policy Act Regulations, 46 Fed.

Reg. 18,026, 18,037 (Mar. 23, 1981) (“[A] precedent setting case” includes “a first intrusion of even a minor development into a pristine area”).

Icebreaker is a precedent-setting project if ever there was one. When DOE first analyzed the Project, it was “the first installation of wind turbines in a freshwater ecosystem anywhere in the world[,] . . . the first installation of offshore wind anywhere in the Great Lakes, and likely only the second offshore wind facility in the western hemisphere.” DOE_2852. LEEDCo itself has stated many times that its “ultimate intent is to expand from an initial 20-30 [MW] demonstration project to a 1,000 MW build-out” in the near future. DOE_482; *see also* DOE_759 (citing article in which LEEDCo said that its “long-term intention is to place as many as 1,000 turbines along the southern shore of Lake Erie”); Exhibit D at 3 (LEEDCo funding application stating that Icebreaker is just the “first phase” in the company’s plan “to develop an offshore wind industry in the Great Lakes”).

For this reason, FWS concluded that an EIS was required. DOE_482 (“Given the precedent-setting nature of this demonstration project and potential influence on potential future off-shore wind project development, we believe an EA is inadequate to fully address the potentially significant, precedent setting aspects of this project.”). This conclusion is further compelled because any future Project expansion will not qualify for DOE funding as a “demonstration project” and thus will not undergo any further DOE NEPA review; it undermines NEPA for DOE to allocate substantial taxpayer funds to the initial phase of the Project while refusing to grapple in an EIS with the foreseeable expansion expressly contemplated by LEEDCo.

DOE’s claim that its funding decision “is not establishing a precedent or making a decision with respect to any future offshore wind project,” DOE_5576, cannot be accepted. Icebreaker is billed as a “demonstration project” and is purposefully designed to catalyze offshore wind development in the Great Lakes and beyond. DOE_5712 (“Project Icebreaker will promote and accelerate responsible offshore wind development in Lake Erie and the Great Lakes.”); *see also*

DOE_3263 (“[D]emonstration projects . . . help eliminate uncertainties, mitigate risks, and support the private sector in creating a robust U.S. Offshore Wind Energy Industry.”); DOE_3478 (“DOE’s decision whether to fund this demonstration scale project would be intended to result in information and data that would be beneficial to the offshore wind industry in general, not specifically fresh water projects or the Great Lakes.”); DOE_2 (“Icebreaker has made significant progress in establishing a permitting protocol *that will be the basis for future projects* in state waters across the Great Lakes.” (emphasis added)).

In short, Icebreaker is a textbook definition of a precedential project. *See, e.g., Precedent*, Black’s Law Dictionary (11th ed. 2019) (defining “precedent” as “[a]n action or official decision that can be used as support for later actions or decisions”). DOE’s funding of Icebreaker is in fact shaping how future offshore wind projects in the Great Lakes will be permitted, *see* DOE_2; *see also* DOE_5905, and how the impacts of those future projects will be measured, DOE_2839 (“If per-turbine impacts are not accurately measured for this precedent-setting project, risk levels of larger future projects may be substantially underestimated.”).

For this reason alone—Icebreaker’s precedential status—DOE violated NEPA by refusing to prepare an EIS. *See Anderson*, 371 F.3d at 493 (finding that even though an agency’s decision regarding whaling quotas was “not binding” on future decisions, it “could be used as a precedent” in future decisions, “thereby making it easier for such groups to gain approval for whaling”); *see also Anglers of the Au Sable v. U.S. Forest Serv.*, 565 F. Supp. 2d 812, 831–32 (E.D. Mich. 2008) (holding that the Forest Service “failed to take a ‘hard look’ at the precedential effect of its decision” to permit an exploratory gas and oil well—“the very point” of which “is to evaluate the possibilities for future development”—even though “future wells would require individual EAs prior to approval”).

4. *Icebreaker Implicates Additional Significance Criteria*

An EIS is also required for any action which may affect “[u]nique characteristics of the geographic area such as proximity to *historic or cultural resources . . . or ecologically critical areas.*” 40 C.F.R. § 1508.27(b)(3) (emphasis added). With respect to “historic or cultural resources,” OHPO determined in its expert view that the Project would fundamentally alter “the character of the properties’ settings that contribute to their historic significance and . . . introduce visual elements that are out of character with the historic setting of the historic properties.” DOE_944. The relevant section of the FONSI, which purports to consider the Project’s “proximity to historic or cultural resources,” 40 C.F.R. § 1508.27(b)(3), fails to mention this disputed finding entirely. *See* DOE_5575.

With respect to “ecologically critical areas,” Icebreaker is slated for construction in the heart of a formally designated Global IBA, known as the Lake Erie Central Basin IBA. DOE_3333. Likewise, the Project will be sited adjacent to two other IBAs, the Cleveland Lakefront IBA, *id.*, and the Lake Erie Western Basin IBA, *see* Ex. A at 4. “By definition, [IBAs] supply unique characteristics to many bird species (and other wildlife) and constitute ecologically critical areas.” *Id.*; *see also* DOE_2867 (FWS outlining the significance of the Project area to various bird species).

Although the FONSI acknowledges the existence of these specially designated areas, DOE_5575, it dismisses this criterion by stating “[t]here would be no potential for population-level impacts to any species of bird as a result of the [] Project.” *Id.* That conclusion “is a *non sequitur*, not reasoned analysis.” *Humane Soc’y v. U.S. Dep’t of Commerce*, 432 F. Supp. 2d 4, 21 (D.D.C. 2006). By relying on this arbitrary “population-level impacts” measure, DOE ignored the crucial question under this criterion: whether Icebreaker (or any potential expansion of wind energy on Lake Erie) will affect the “[u]nique characteristics of the geographic area,” including “ecologically critical areas.” 40 C.F.R. § 1508.27(b)(3). DOE’s failure to address whether Icebreaker will alter the ecological characteristics that make the surrounding IBAs unique, or whether those IBAs would even retain

their designation if the Project is built, cannot be squared with its duty to take a “hard look” at the Project’s effects. *See Anglers of the Au Sable*, 565 F. Supp. 2d at 825–27 (rejecting agency’s failure to examine impacts to the recreational value of a National Forest, a unique characteristic of the geographic area); *see also Humane Soc’y*, 432 F. Supp. 2d at 21 (setting aside agency’s reliance on a “population-level impacts” metric where the project entailed both “uncertain effects and unknown risks”).

In addition, the CEQ regulations require an EIS to be prepared where “the action is related to other actions with individually insignificant but cumulatively significant impacts.” 40 C.F.R. § 1508.27(b)(7). As discussed in further detail below, *infra* pp. 38–41, DOE’s FONSI dismisses as “speculation” the entirely foreseeable expansion of Icebreaker and the advancement of wind energy on Lake Erie as a whole. DOE_5577. By turning a blind eye to these near-certain outcomes, DOE has arbitrarily overlooked yet another significance criterion counseling in favor of an EIS.

In sum, because the Project implicates multiple significance criteria within a local, regional, national, and even global context—and only one such factor need be satisfied to require an EIS—DOE’s FONSI must be set aside as arbitrary and capricious, and DOE should be ordered to prepare an EIS if LEEDCo wishes to proceed with the Project.

III. THE FINAL EA AND FONSI THEMSELVES VIOLATE NEPA

A. DOE Failed to Take A Hard Look at Reasonable Alternatives

Although NEPA allows agencies to conduct a less rigorous examination of alternatives in an EA than in an EIS, *compare* 40 C.F.R. § 1508.9 (requiring “brief discussion[] . . . of alternatives as required by section 102(2)(E)” in an EA), *with* 40 C.F.R. § 1502.14(a), (b) (requiring agencies to “[r]igorously explore . . . all reasonable alternatives” and “[d]evote substantial treatment to each alternative” in an EIS), an agency *must* analyze all reasonable alternatives regardless of whether the

agency opts for an EA or EIS. *See, e.g., Te-Moak Tribe v. U.S. Dep't of Interior*, 608 F.3d 592, 601–02 (9th Cir. 2010) (“Agencies are required to consider alternatives in both EISs and EAs and must give full and meaningful consideration to all reasonable alternatives.” (citation omitted)); *see also* 42 U.S.C. § 4332(E) (“[T]o the fullest extent possible” each agency must “study, develop, and describe appropriate alternatives to recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources”).

1. Reasonable Alternatives Were Proposed to DOE

Throughout the decisionmaking process, DOE received myriad comments from its expert sister agencies and the public urging it to examine a broader range of alternatives that would satisfy the Project’s stated purpose of “verify[ing] innovative designs and technology developments and validat[ing] full performance and cost under real operating and market conditions.” DOE_3263. For example, many commenters encouraged DOE to consider emerging “bird- and bat-friendly” turbine designs, such as “bladeless” turbines. *See* DOE_2966; DOE_3245; DOE_501; DOE_509.

Similarly, FWS’s comments on the Draft EA urged DOE to develop and analyze “an alternative where a complete set of detailed pre- and post-construction studies for impacts to birds and bats are presented and required, along with a robust adaptive management plan to address impacts, should they be greater than anticipated.” DOE_2844. “The importance” of this alternative, FWS explained, is that “analysis would showcase the difference in impacts to birds and bats from utility-scale wind developing in Lake Erie between an alternative that provides robust biological studies and assessments of impacts and one with less rigorous pre-construction monitoring and an uncertain post-construction impact analysis method.” DOE_2855. Such analysis “would clearly help eliminate uncertainties and mitigate risk, as per the goals of funding the demonstration project, better than an alternative with a to-be-determined method of monitoring, as currently proposed.” *Id.*

In its comments on the Draft EA, EPA argued that because “only one ‘action’ alternative” was considered, and because Icebreaker was “competitively selected” from the “three projects DOE identified from its offshore wind portfolio as having demonstrated significant progress toward being successfully completed,” the Final EA should describe the process, “along with the criteria,” by which Icebreaker was ultimately selected for funding. DOE_2829. Such analysis, EPA observed, was necessary “to produce a *defensible* NEPA record, particularly since the Proposed Project is a demonstration project.” *Id.* (emphasis added).

Despite these calls, including from agencies with special expertise within the meaning of NEPA, for a more robust alternatives analysis—which included *specific* alternatives aimed at reducing the Project’s impacts and uncertainty—the Final EA left its alternatives analysis unchanged from the Draft EA, and analyzed only the Proposed Action (i.e., funding the Project), DOE_3267, and the No-Action Alternative (i.e., refusing to authorize funding), DOE_3289. None of the alternatives called for by the public, FWS, or EPA was analyzed. Although the Final EA included a section titled, “Alternatives Considered by LEEDCo,” those alternatives were “not under consideration by DOE or evaluated in th[e] EA.” DOE_3293. This cannot pass muster under controlling NEPA authority. *See, e.g., Union Neighbors United v. Jewell*, 831 F.3d 564, 576 (D.C. Cir. 2016) (invalidating alternatives analysis where FWS rejected without explanation a feasible alternative “repeatedly suggested” by commenters that would reduce wildlife deaths from a wind project). Nor can it withstand scrutiny under elementary administrative law principles. *See Del. Dep’t of Nat. Res. v. EPA*, 785 F.3d 1, 14–15 (D.C. Cir. 2015) (holding that “refus[al] to engage with the commenters” contentions renders an action “arbitrary and capricious on that ground alone”).

2. DOE’s Justification for Refusing to Consider Additional Alternatives is Arbitrary and Capricious

NEPA section 102(2)(E) requires agencies to “study, develop, and describe appropriate alternatives to recommended courses of action in any proposal which involves unresolved conflicts

concerning alternative uses of available resources.” 42 U.S.C. § 4332(E). Rather than address the many comments about its inadequate evaluation of alternatives, DOE claimed that the Project “does not involve unresolved conflicts concerning alternative uses of available resources.” DOE_3479. Yet DOE never said how it reached that conclusion—just an *ipse dixit* relieving it of the duty to consider alternatives. On this basis alone, DOE’s alternatives analysis must be set aside. *See Motor Vehicle Mfrs. Ass’n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983) (explaining that an agency acts arbitrarily and capriciously where it fails to “articulate a satisfactory explanation for its action including a rational connection between the facts found and the choice made”); *Union Neighbors*, 831 F.3d at 577 (rejecting NEPA analysis that ignored proposed alternative as “not necessary” without further explanation).

Moreover, section 102(2)(E) is not an escape clause for agencies that wish to avoid considering alternatives. As the D.C. Circuit has explained, section 102(2)(E) “parallels the general EIS requirement of discussion of ‘alternatives to the proposed action.’” *Friends of the River v. FERC*, 720 F.2d 93, 104 (D.C. Cir. 1983). Courts have accordingly held that, regardless of the document’s title, “NEPA and the CEQ regulations make it clear that an agency must *always* consider alternatives to a proposed action.” *Sierra Club v. Watkins*, 808 F. Supp. 852, 870 (D.D.C. 1991) (emphasis added). Without that analysis, “EA’s would not fulfill the mandate of NEPA nor provide the decisionmaker or the public with information about the choice.” *Id.* at 871.

And finally, DOE’s factual claim of no “unresolved conflicts” is demonstrably wrong. The entire Project is nothing if not an “unresolved conflict[] concerning alternative uses of available resources.” DOE_3479. Plaintiffs, along with numerous commenters and expert agencies, have expressed serious and consistent objections to the Project’s potential impacts on birds and bats, while OHPO has articulated similar concerns over the Project’s effects on historic resources. *See supra* pp. 27–30. These ongoing disputes over whether Lake Erie’s wildlife “resources” should be left

undisturbed or, at minimum, should be conserved through innovative Project measures to reduce mortality risk, undeniably constitute “unresolved conflicts” within the meaning of the statute. *See Bob Marshall All. v. Hodel*, 852 F.2d 1223, 1228 (9th Cir. 1988) (holding that the sale of oil and gas leases “involves conflicts as to the present and future uses of [National Forest lands], because the issuance of the leases may allow or lead to other activities that would” degrade those lands’ overall quality).

In short, DOE’s unexplained and unsupported rationale for refusing to “give full and meaningful consideration to all reasonable alternatives” as required in an EA, *Te-Moak Tribe*, 608 F.3d at 601–02, violates NEPA’s core mandate and is therefore patently arbitrary. The Final EA and FONSI must be set aside. *See Union Neighbors*, 831 F.3d at 577.

B. DOE Failed to Take A Hard Look at the Cumulative Impacts of Its Decision

NEPA requires agencies to examine the indirect and cumulative effects of a proposed project. 40 C.F.R. §§ 1508.7–1508.9. “Indirect effects” are those that are “later in time or farther removed in distance,” yet “reasonably foreseeable,” *Dep’t of Transp. v. Pub. Citizen*, 541 U.S. 752, 764 (2004), and include those “growth-inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems,” 40 C.F.R. § 1508.8(b). Cumulative impacts are those impacts that “result[] from the incremental impact[s] of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions.” 40 C.F.R. § 1508.7. An effect—whether indirect or cumulative—is “reasonably foreseeable” when it is “sufficiently likely to occur that a person of ordinary prudence would take it into account in reaching a decision.” *Sierra Club v. FERC*, 827 F.3d 38, 47 (D.C. Cir. 2016).

Here, the record is clear that LEEDCo has designs to expand the Project from “an initial 20-30 [MW] demonstration project to a 1,000 MW build-out” within the foreseeable future. DOE_482;

see also DOE_1009 (“DOE acknowledges that LEEDCo’s hope is that this demonstration project could support future wind development in Lake Erie.”); *supra* pp. 31–32. That consideration, combined with the Project’s driving motivation—i.e., the acceleration of a wind energy industry in locations “where future development has the highest probability of commercial viability,” DOE_5911—underscores the need for an in-depth examination of the Project’s indirect and cumulative impacts, especially because they threaten to wreak havoc on local and migratory populations of birds and bats. *See* DOE_2841–42 (FWS discussing the known impacts on birds from wind energy); *see also* DOE_2843 (“Wind energy facilities in various habitats across the U.S. and Canada have been documented to cause widespread and often extensive fatalities of bats.” (internal quotation marks and citation omitted)).

To escape this analysis, DOE invoked an impermissibly narrow view of “reasonably foreseeable” projects and gave itself a pass by dismissing the future development of wind energy on Lake Erie as mere “speculation at this point.” DOE_5577; *see also* DOE_3411 (declining to analyze cumulative impacts because “there are no specific plans for any future projects; there are no proposals for any specific number or type of turbines, and no potential locations identified”).⁸

⁸ DOE has frequently engaged in forecasting to analyze the reasonably foreseeable impacts of other projects that are similarly intended to spur the development of wind energy. *See, e.g.*, U.S. Dep’t of Energy, Plains & Eastern Clean Line Transmission Project: Environmental Impact Statement S-ii (2015), <https://bit.ly/3kSl4qW> (using wind resource data to estimate the radius within which wind power projects connected to a transmission line constructed to stimulate the development of wind energy would be located). In that analogous scenario, DOE examined engineering constraints and wind resource data, industry knowledge, and economic feasibility, *id.* at S-49 to -50, estimated the “actual wind farm buildout” that was reasonably likely to occur in the area, *id.* at 2-47, and discussed the impacts of the potential wind energy developments that, although not yet identified, would likely “result after the Project is constructed,” *see, e.g., id.* at 3.3-25; 3.14-64 to 3.14-68. DOE conducted that an analysis without knowing the exact location of wind power facilities because it is “reasonably foreseeable that future wind farms would be located in . . . areas with high wind resource potential and suitable land use(s).” *Id.* at 2-47. Thus, even though no wind energy facilities were proposed at the time that project’s EIS was finalized, DOE examined the foreseeable impacts on resources occurring within a reasonably forecast radius.

DOE's approach here violated its duty under NEPA to take a "hard look" at the effects of its decision. The prospect of expanded wind energy projects on Lake Erie was "reasonably foreseeable" because it is "sufficiently likely to occur that a person of ordinary prudence [such as FWS, OHPO, and Plaintiffs] would take it into account in reaching a decision." *Sierra Club v. FERC*, 827 F.3d at 47; *see also* DOE_2844-45; DOE_1021-22; DOE_1019; DOE_2976. DOE cannot avoid its NEPA duty by saying what is "reasonably foreseeable" is only "speculative." *See Friends of the Earth v. U.S. Army Corps of Eng'rs*, 109 F. Supp. 2d 30, 41 (D.D.C. 2000) ("Since the economic development of these areas is an announced goal and anticipated consequence of the [action], the Corps cannot claim that the prospect of secondary development is 'highly speculative.'").

DOE's failure to examine the cumulative impacts of the Project is further notable given that the impacts associated with expanded wind energy developments on Lake Erie—i.e., aggravated impacts to birds, bats, and historic resources—are highly relevant and therefore "useful" to the agency's decisionmaking process with respect to the Project itself. *See Sierra Club v. U.S. Dep't of Energy*, 867 F.3d 189, 198-99 (D.C. Cir. 2017) (determining whether impacts are "reasonably foreseeable" depends in part on "the 'usefulness of [that] new potential information to the decisionmaking process.'" (quoting *Pub. Citizen*, 541 U.S. at 767)). As such, NEPA's "hard look" requirement imposes upon DOE a duty to engage in a meaningful discussion of reasonably foreseeable future actions and their impacts—even if the details of a particular project are not fully planned—especially where such information would be very useful to Defendants' decisionmaking processes. *See id.* ("In determining what effects are 'reasonably foreseeable,' an agency must engage in 'reasonable forecasting and speculation.'" (quoting *Del. Riverkeeper v. FERC*, 753 F.3d 1304, 1310 (D.C. Cir. 2014)); *see also* *N. Plains Res. Council v. Surface Transp. Bd.*, 668 F.3d 1067, 1078 (9th Cir. 2011) ("[P]rojects need not be finalized before they are reasonably foreseeable."). Where, as here, an

agency “shirk[s] its responsibilities under NEPA by labeling any and all discussion” of cumulative impacts a “crystal ball inquiry,” *Del. Riverkeeper*, 753 F.3d at 1310, its analysis must be set aside.

IV. THE CORPS’ SECTION 404 PERMIT VIOLATES THE CWA

The Corps acted arbitrarily and capriciously by determining that Icebreaker is “not contrary to the public interest,” “complies with the [Section 404(b)(1)] Guidelines,” USACE_131, and is the “least environmentally damaging practicable alternative.” USACE_95–97.

A. There is Insufficient Information to Conclude that LEEDCo’s Section 404 Permit Will Comply with the Guidelines

Under the Guidelines, the Corps is prohibited from issuing a Section 404 permit that will “contribute to significant degradation of the waters of the United States,” which includes “[s]ignificantly adverse effects” to wildlife. 40 C.F.R. § 230.10(c). Likewise, a permit must be denied where “[t]he proposed discharge does not include all appropriate and practicable measures to minimize potential harm to the aquatic ecosystem”; or “[t]here does not exist sufficient information to make a reasonable judgment as to whether the proposed discharge will comply with the[] Guidelines.” *Id.* § 230.12(a)(3). Whether or not a given project will comply with the Guidelines is central to the Corps’ “public interest review” under the agency’s regulations. 33 C.F.R. § 320.4(a)(1); *see also City Club of N.Y. v. U.S. Army Corps of Eng’rs*, 246 F. Supp. 3d 860, 865 (S.D.N.Y. 2017).

The Corps’ “public interest review” of Icebreaker relied entirely on the findings of DOE and its contractors to conclude that it is “not contrary to the public interest” and “complies with the [Section 404(b)(1)] Guidelines,” USACE_131; *see also* USACE_110 (public interest review section pertaining to wildlife impacts). As noted above, however, FWS concluded that “there is great uncertainty as to how birds and bats are using the airspace in and around the project area, and how many individuals may be exposed to and strike the proposed turbines over the life of the project.” USACE_2978; *see* USACE_2986 (observing that despite “the small number of turbines,” FWS “do[es] not believe that the data currently available provides conclusive evidence of low risk based

on the level of bird use.”). Rather than defer to FWS’s expert judgment, the Corps responded to those concerns by stating that it “accepts the *DOE* response, *analyses, and conclusions* regarding the ‘bird study deficiency’ comments, and believes that [these concerns have] been adequately addressed by the DOE.” USACE_152 (emphases added); USACE_148–49 (responding to comment over lack of bird and bat data by explaining “[t]he Corps agrees with the *DOE conclusions* concerning their assessment of impacts to birds and bats,” rather than FWS’s (emphasis added)).

The Corps’ disregard for FWS’s expert judgment concerning the dearth of information about the Project’s potential effects on wildlife cannot pass muster under the Corps’ own regulations. *See* 40 C.F.R. § 230.12(a)(3)(iv) (“[P]roposed disposal sites for the discharge of dredged or fill material must be . . . [s]pecified as failing to comply with the requirements of these Guidelines where . . . [t]here does not exist sufficient information to make a reasonable judgment as to whether the proposed discharge will comply with these Guidelines.”). Indeed, the Corps’ regulations provide that, “with a view to the conservation of wildlife resources by prevention of their direct and indirect loss and damage due to the activity proposed in a permit application,” the Corps “will give full consideration to the views of [FWS] on fish and wildlife matters in deciding on the issuance, denial, or conditioning of individual or general permits.” 33 C.F.R. § 320.4(c). Although “the Corps is not bound to agree with the conclusions reached by [FWS],” it is required to give “*full consideration* to their comments.” *Cf. Sierra Club v. U.S. Army Corps of Eng’rs*, 772 F.2d 1043, 1054 (2d Cir. 1985) (emphasis added) (finding the Corps complied with 33 C.F.R. § 320.4(c) by preparing “detailed responses” to FWS’s comments). The Corps’ comments in response to FWS’s concerns here, by comparison, are wholesale adoptions of the very analysis FWS had *rejected*. The Corps did not explain why it deferred to DOE’s examination of impacts to birds and bats over the expert agency charged by Congress with analyzing wildlife impacts. By issuing a permit on the basis of unexplained and unsupported assumptions that contradict FWS’s conclusions, the Corps did not “give full

consideration” to the views of FWS, in violation of its own regulations. 33 C.F.R. § 320.4(c). Accordingly, the Corps’ “public interest review” and permit must be set aside.

B. The Corps Failed to Consider Practicable Alternatives to the Project

Under the Guidelines, the Corps is prohibited from permitting a project when there exists a practicable alternative that would have less adverse impacts. 40 C.F.R. § 230.10(a). “An alternative is practicable if it is available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes.” *Id.* § 230.10(a)(2). Where the Corps’ analysis is coextensive with a NEPA review, “it may be necessary to supplement these NEPA documents with [] additional information” necessary to satisfy the Corps’ obligations under the Guidelines. *Id.* § 230.10(a)(4). Similarly, the Corps may not permit a particular project “unless appropriate and practicable steps have been taken which will minimize potential adverse impacts of the discharge on the aquatic ecosystem.” *Id.* § 230.10(d).

The Corps has violated the Guidelines by failing to adequately examine an alternative that would include a defined post-construction monitoring system for bird and bat collisions with Icebreaker. Icebreaker’s “overall project purpose,” as defined by the Corps, is “the development of a small-scale off-shore wind energy *demonstration project* in Lake Erie.” USACE_194 (emphasis added). To fulfill its purpose as a “demonstration project”—i.e., a project ostensibly designed to collect “environmental monitoring” data and study the risks associated with offshore wind developments, USACE_193—Icebreaker must include a viable mechanism for assessing the actual effects of the Project on birds and bats within the Project footprint. USACE_1436 (LEEDCo subcontractor stating that post-construction monitoring is “one of the most important objectives of this small demonstration project . . . and in the spirit of generating the greatest scientific value as a [DOE] funded demonstration project”); *see also* USACE_2992 (FWS emphasizing that “one of the purposes of a small-scale demonstration project is to assess the impacts of the project and be able to

extrapolate those impacts to a larger scale”). In the absence of a robust monitoring system, Icebreaker has the potential to inflict serious environmental damage by underrepresenting the risk levels associated with larger future projects that rely upon scaled data collected by Icebreaker. USACE_2972; *see also* USACE_2987. By the Corps’ own admission, an effective mortality monitoring system is central to the implementation of mitigation measures to reduce the Project’s impacts on birds and bats. *See* USACE_141 (“Mitigation and adaptive management would be implemented if actual impacts [as measured by post-construction monitoring] exceed measures.”); *see also* USACE_229 (“Collecting and evaluating post-construction monitoring data would inform continued operations of [Icebreaker] and implementation of adaptive management measures.”).

For these reasons, FWS encouraged the Corps and DOE consider an alternative that includes a *defined* post-construction monitoring plan. USACE2977–78. That alternative would “eliminate uncertainties and mitigate risk, as per the goals of funding the demonstration project, better than an alternative with a to-be-determined method of monitoring, as currently proposed.” USACE_2978; *see also* USACE_2994–97 (suggesting several post-construction monitoring mechanisms); USACE_1436–39 (LEEDCo subcontractor discussing various post-construction monitoring mechanisms). While the Corps’ responses to comments acknowledge this reasonable (and, indeed, necessary) alternative, it never actually evaluated it, *see* USACE_141. Instead, the Corps simply said that it “accepts [LEEDCo]’s commitment to pre- and post-construction studies to assess impacts to birds and bats” and that LEEDCo “has demonstrated due diligence by [committing] to conduct thorough post-construction monitoring of proposed project impacts, and to undertake adaptive management measures, if necessary.” *Id.* LEEDCo’s “due diligence,” however, consists entirely of a statement that it will *eventually* “design a post-construction mortality monitoring plan using innovative technologies that are economically and logistically feasible for this demonstration project.” USACE_2500; *see also* USACE_2962 (ODNR comments observing that a “[s]pecific

methodology has not yet been determined for some important elements at the project site,” including “post-construction monitoring protocols for bird and bat mortality”).

LEEDCo’s someday intentions of developing post-construction monitoring mechanisms cannot displace the Corps’ independent obligation to actually *analyze* an alternative which includes those mechanisms, and to adopt the least environmentally damaging practicable alternative (which a robust monitoring plan will ensure). *See* 40 C.F.R. § 230.10(a), (d); *see also Sierra Club v. Van Antwerp*, 709 F. Supp. 2d 1254, 1265–66 (S.D. Fl. 2009) (rejecting the Corps’ failure to “independently investigate[]” alternatives dismissed by the applicant). The Guidelines impose upon the Corps a duty to “explain fully, based [on] an analysis adequate to the task, why” FWS’s proposed alternative was “either impracticable or more damaging.” *All. to Save the Mattiponi v. U.S. Army Corps of Eng’rs*, 606 F. Supp. 2d 121, 130 (D.D.C. 2009). Because the Corps’ analysis here does neither, it must be set aside.

CONCLUSION

For the foregoing reasons, Plaintiffs respectfully request that the Court vacate DOE’s Final EA, FONSI, Funding Award to LEEDCo, and the Corps’ Section 404 Permit, and remand this matter for further proceedings.⁹

⁹ As this Court has observed, the APA “commands that courts ‘hold unlawful and set aside agency action[s],’ [findings, and conclusions found to be . . . arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law; or] taken ‘without observance of procedure required by law.’” *Capital Area Immigrants’ Coal. v. Trump*, Civ. No. 19-2117, 2020 WL 3542481, *21–22 (D.D.C. June 30, 2020) (Kelly, J.) (quoting 5 U.S.C. § 706(2)(D)). Although “the D.C. Circuit has held—despite the text of the APA—that in some cases, a court may remand a defective rule without vacating it,” *id.* at *22 (citation omitted), none of those instances applies here. *See id.* (discussing circumstances which courts have found warranted a departure from the APA’s plain language). Thus, Plaintiffs are entitled to the default remedy of vacatur. *Am. Bioscience, Inc. v. Thompson*, 269 F.3d 1077, 1084 (D.C. Cir. 2001) (a plaintiff who “prevails on its APA claim . . . is entitled to relief under that statute, which normally will be a vacatur”).

Respectfully submitted,

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