

 Columbia **Law School** | COLUMBIA CLIMATE SCHOOL
SABIN CENTER FOR CLIMATE CHANGE LAW

How does the NEPA Process Evaluate Impacts? Risks and Opportunities.

Matthew Eisenson, Fellow
Renewable Energy Legal Defense Initiative (RELDI)

April 20, 2023

Renewable Energy Legal Defense Initiative (RELDI)

- Research on obstacles to siting renewables

- Letters advising local governments not to adopt unlawful restrictions

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- Research on obstacles to siting renewables
- Direct representation of landowners and community groups:
 - Amicus briefs
 - Intervention in siting proceedings
 - Letters to local governments



Planning & Analysis

~ 2 YEARS

- Intergovernmental Task Force
- Request for Information or Call for Information and Nominations
- Area Identification
- Environmental Reviews

Leasing

~ 1-2 YEARS

- Publish Leasing Notices
- Conduct Auction or Negotiate Lease Terms
- Issue Lease(s)

Site Assessment

UP TO 5 YEARS

- Site Characterization
- Site Assessment Plan

Construction & Operations

~ 2 YEARS (+25)

- Construction and Operations Plan
- Facility Design Report and Fabrication and Installation Report
- Decommissioning
- Environmental and Technical Reviews

Four NEPA challenges against Vineyard Wind

1. *Allco Renewable Energy v. Haaland* (filed July 18, 2021)
SOLAR DEVELOPER
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Outline

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2. How are species and habitat risks evaluated in an EIS and how does this analysis inform agency decisionmaking?
3. How are EISs being challenged in court?
4. How can the NEPA process be improved to better achieve net positive impact?

When is an EIS required?

An EIS is required for any “**major Federal action**” that “significantly affect[s] the quality of the human environment.”

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- (i) the **environmental impact** of the proposed action
- (ii) any adverse environmental **effects which cannot be avoided** should the proposal be implemented
- (iii) **alternatives** to the proposed action



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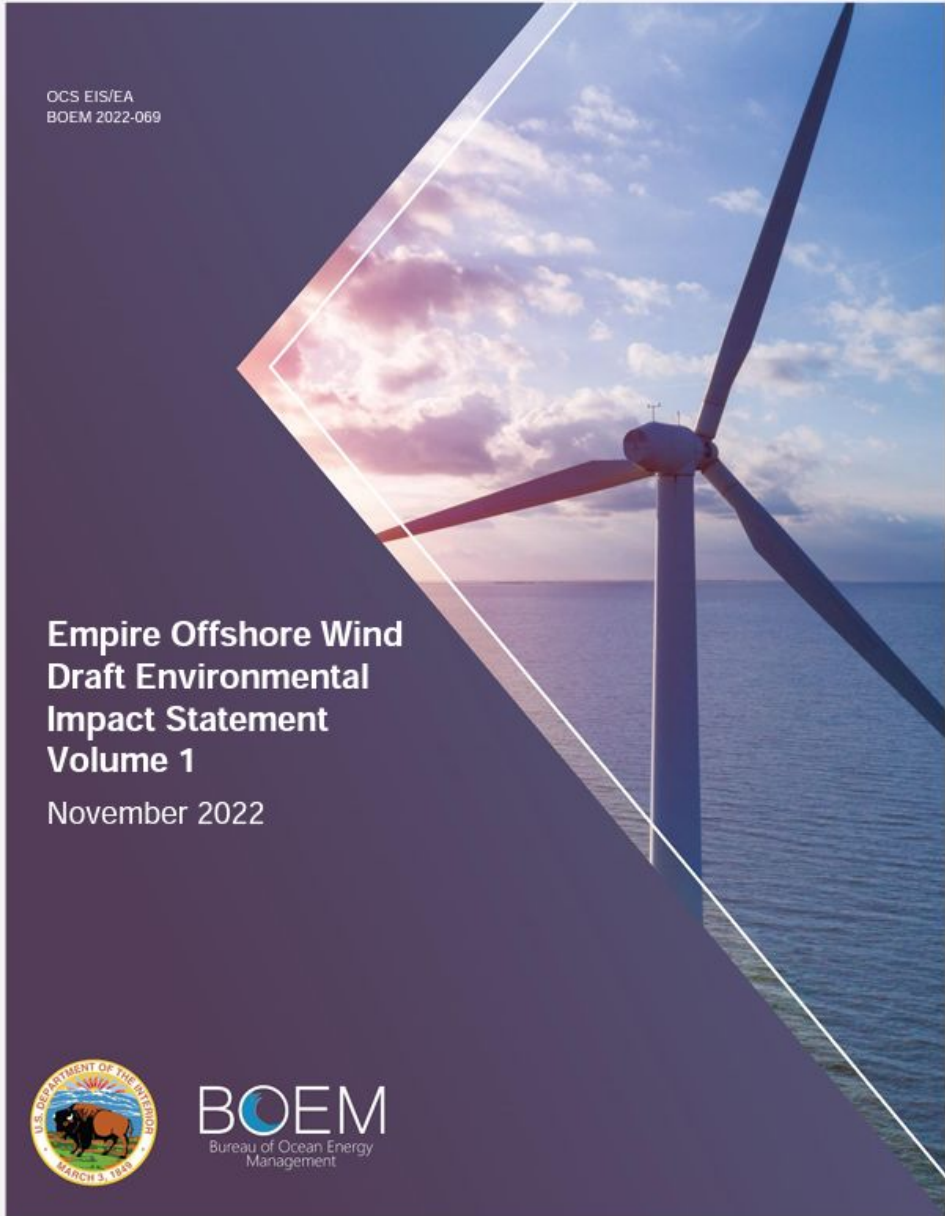
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How detailed does an EIS need to be?

More comprehensive	Less comprehensive
<p>An EIS “shall provide full and fair discussion” of “significant environmental impacts” and “reasonable alternatives”</p> <p>40 C.F.R. 1502.1</p>	<p>An EIS “shall not be encyclopedic.”</p> <p>An EIS “shall be analytic, concise, and no longer than necessary”</p> <p>An EIS “shall discuss impacts in proportion to their significance.”</p> <p>40 C.F.R. 1502.2</p>

NEPA requires a “hard look”

NEPA requires federal agencies to take a “hard look” at “their proposed actions’ environmental consequences in advance of deciding whether and how to proceed.”

Sierra Club v. U.S. Army Corps of Eng’rs, 803 F.3d 31, 37 (D.C. Cir. 2015).

How are risks evaluated?

Table S-2 Summary and Comparison of Impacts Among Alternatives with No Mitigation Measures

Resource	No Action Alternative	Alternative A Proposed Action	Alternative B – Remove 6 WTG Positions (EW 1)	Alternative C – EW 1 Submarine Cable Routes	Alternative D – Avoid Sand Borrow Area (EW 2)	Alternative E – Separation between EW 1 and EW 2	Alternative F – Wind Resource Optimization	Alternative G – Barnums Channel Crossing	Alternative H – Dredging for EW 1 Cable Landfall
3.4, Air Quality									
<i>Alternative Impacts</i>	Moderate	Minor, minor beneficial	Minor, minor beneficial	Minor, minor beneficial	Minor, minor beneficial	Minor, minor beneficial	Minor, minor beneficial	Minor, minor beneficial	Minor, minor beneficial
3.7, Birds									
<i>Alternative Impacts</i>	Minor	Minor, minor beneficial	Minor, minor beneficial	Minor, minor beneficial	Minor, minor beneficial	Minor, minor beneficial	Minor, minor beneficial	Minor, minor beneficial	Minor, minor beneficial
3.8, Coastal Habitat and Fauna									
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3.15, Marine Mammals									
<i>Alternative Impacts</i>	Moderate	Negligible to moderate; minor beneficial	Negligible to moderate; minor beneficial	Negligible to moderate; minor beneficial	Negligible to moderate; minor beneficial	Negligible to moderate; minor beneficial	Negligible to moderate; minor beneficial	Negligible to moderate; minor beneficial	Negligible to moderate; minor beneficial

Empire Wind DEIS (Nov. 2022)

Marine mammal impacts

No Action Alternative	Proposed Action
<p>Climate change:</p> <ul style="list-style-type: none">• “Increased storm severity or frequency may result in increased energetic costs...reducing individual fitness”• “Ocean acidification may affect some marine mammals through negative effects on zooplankton.”• “Warming and sea level rise, with their associated consequences, and ocean acidification could lead to long-term, high-consequence impacts on marine mammals.”	<p>Accidental releases: No incremental impact.</p> <p>EMF: Too small to measure.</p> <p>Cable emplacement: Too small to measure.</p> <p>Noise: Impacts will be temporary and localized.</p> <p>Presence of structures: Entanglement in fishing gear and displacement to areas with higher risk of vessel traffic could have population-level consequences for some baleen whale species.</p> <p>Traffic: Small incremental increase in traffic will be mitigated by measures proposed by developer.</p>

GHG impacts

Table 3.4-5 Estimated Social Cost of GHGs associated with the Proposed Action

Description	Social Cost of GHGs (2020\$) ^{1,2}			
	Average Value, 5% discount rate	Average Value, 3% discount rate	Average Value, 2.5% discount rate	95th Percentile Value, 3% discount rate
Construction, Operation, and Decommissioning	\$20,483,000	\$81,201,000	\$124,333,000	\$246,235,000
Avoided Emissions	-\$977,131,000	-\$4,060,472,000	-\$6,271,797,000	-\$12,404,875,000
Net SC-GHG	-\$956,647,000	-\$3,979,271,000	-\$6,147,464,000	-\$12,158,640,000

GHG impacts

- Annual avoided emissions: 3.6 million tons of CO₂ or 705,000 cars off the road.
- CO₂ emissions from development and eventual decommissioning would be **offset within 3 months** of operation.

How are EISs being challenged in court?

- Vineyard Wind case study

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Allco Renewable Energy v. Haaland

Alleged defects in EIS

- No “hard look” at how No Action Alternative would affect on-shore renewable energy (e.g. solar)

Allco Renewable Energy v. Haaland

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- No “hard look” at how No Action Alternative would affect on-shore renewable energy (e.g. solar)
- No “hard look” at acoustic impact of wind turbine generators on North Atlantic Right Whale

The New York Times

The Texas Group Waging a National Crusade Against Climate Action

The Texas Public Policy Foundation is shaping laws, running influence campaigns and taking legal action in a bid to promote fossil fuels.



By **David Gelles**

Gelles is writing a series of articles about groups working to promote fossil fuels and block climate action.



Meghan Lapp, an executive of Seafreeze Shoreside, on whose behalf the foundation filed a lawsuit against the New England wind project. Christopher Capozziello for The New York Times

Seafreeze Shoreside v. DOI

Alleged deficiencies of EIS (cont'd)

- Final EIS considered only 22 GW of Atlantic offshore wind development “reasonably foreseeable” despite federal target of 30 GW

Seafreeze Shoreside v. DOI

Alleged deficiencies of EIS (cont'd)

- Final EIS considered only 22 GW of Atlantic offshore wind development “reasonably foreseeable” despite federal target of 30 GW
- Failure to prepare EIS prior to issuing the Vineyard Wind lease. Thus, no alternatives outside lease area.



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Potential improvements to NEPA process

- More analysis of net impacts rather than apples-and-oranges comparisons of different types of impacts

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Contact information

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