LBT10 Taxpayers Association Long Beach Township



Cindy Zipf Executive Director

Information in this presentation is as of June 24, 2023



























\$38B



Economic Value of NJ Commercial and Recreational Fishing = \$2.5 billion annually















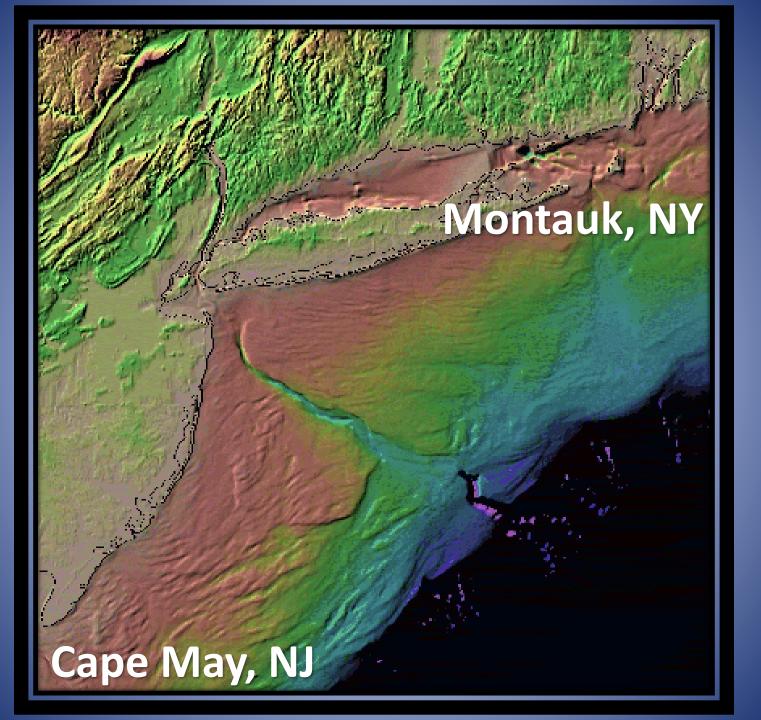
Climate Change Buffer

- 50% CO2 emitted
- 90% of the excess heat

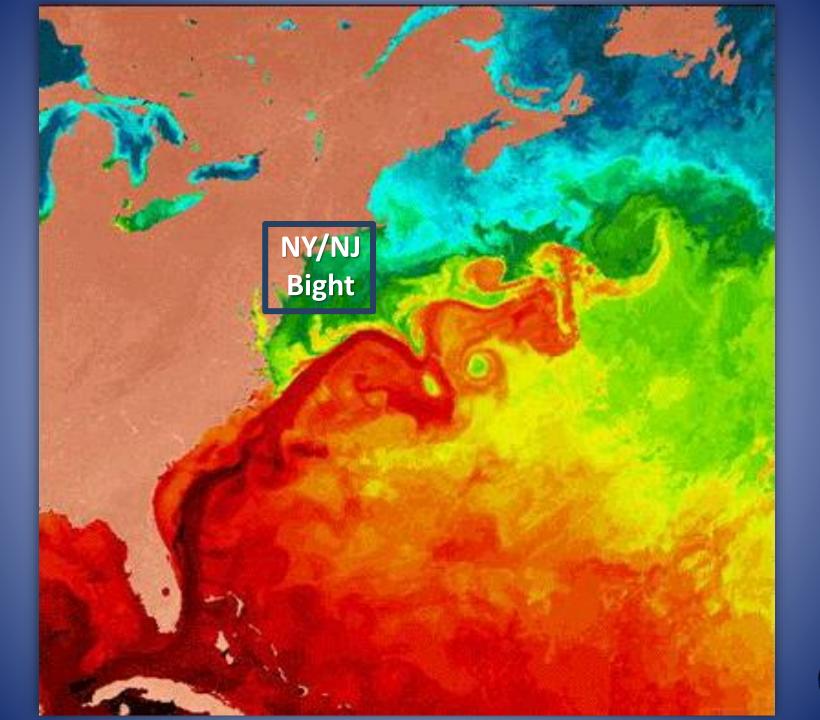
All provided...

... free of charge











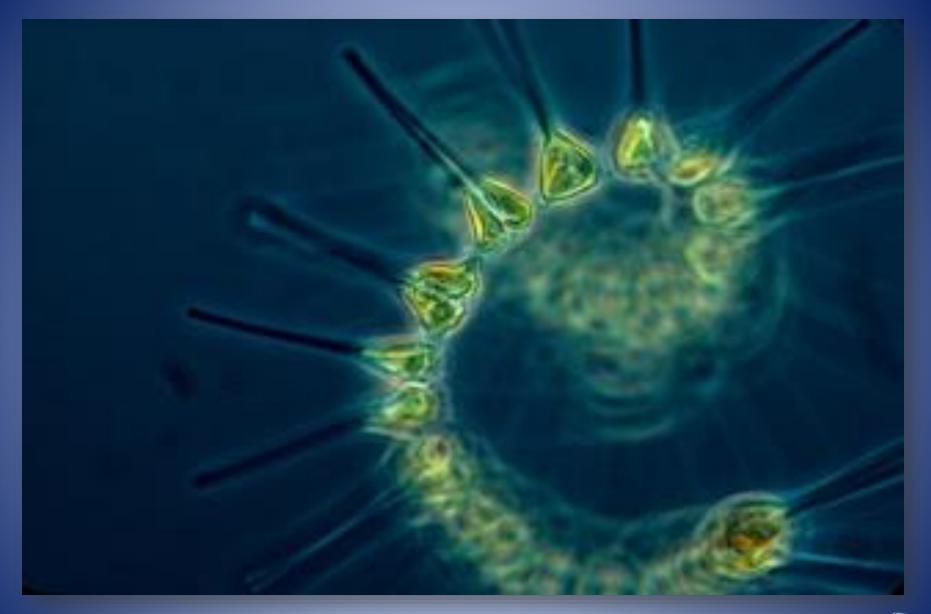






































Photo by Joe Reynolds





14 Threatened and Endangered Species





15 ENDANGERED and threatened birds

NY/NJ 1984

Ocean Dumping





Tar balls on the beach.....













Ocean Dumping Capitol of the World 1984





















Dump Site Free 2000

ersel

Newl

Vew York

Offshore Oil & Gas Drilling a Threat





Offshore Drilling is Risky



NJ: Strongest Law in the Country





Liquefied Natural Gas (LNG) Proposals









Our Best Climate Change Buffer

- 50% CO2 emitted
- 90% of the excess heat



A New Industry: Offshore Wind Energy off NY/NJ



Offshore Wind Energy off NY/NJ

Clean Ocean Action supports responsible and reasonable OSW energy development

Vineyard Wind FEIS

"Overall, it is anticipated that there would be no collective impact on global warming as a result of offshore wind projects, including the Proposed Action alone, though they may beneficially contribute to a broader combination of actions to reduce future impacts from climate change."

BOEM: Vineyard Wind FEIS

The Race for the Bottom "2.4 Million Acres (plus 5.7 million more) 3,500 Turbines

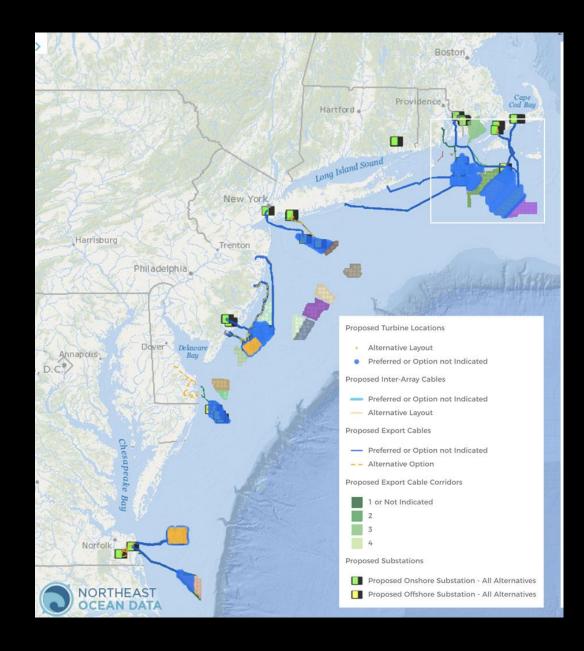
10,000 Miles of Cable"

NMFS

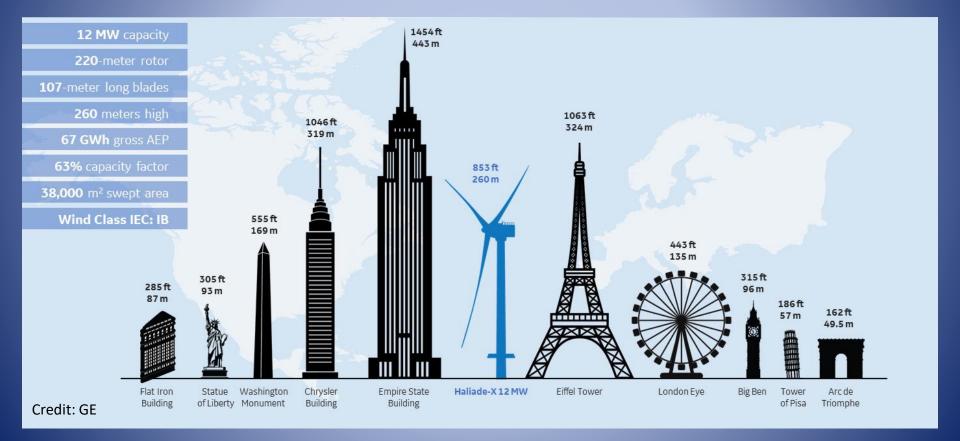
Plus- 50 transmission sub-stations at 30 stories high



Just the beginning....



TURBINE SCALE:



BLADE Length 351 feet



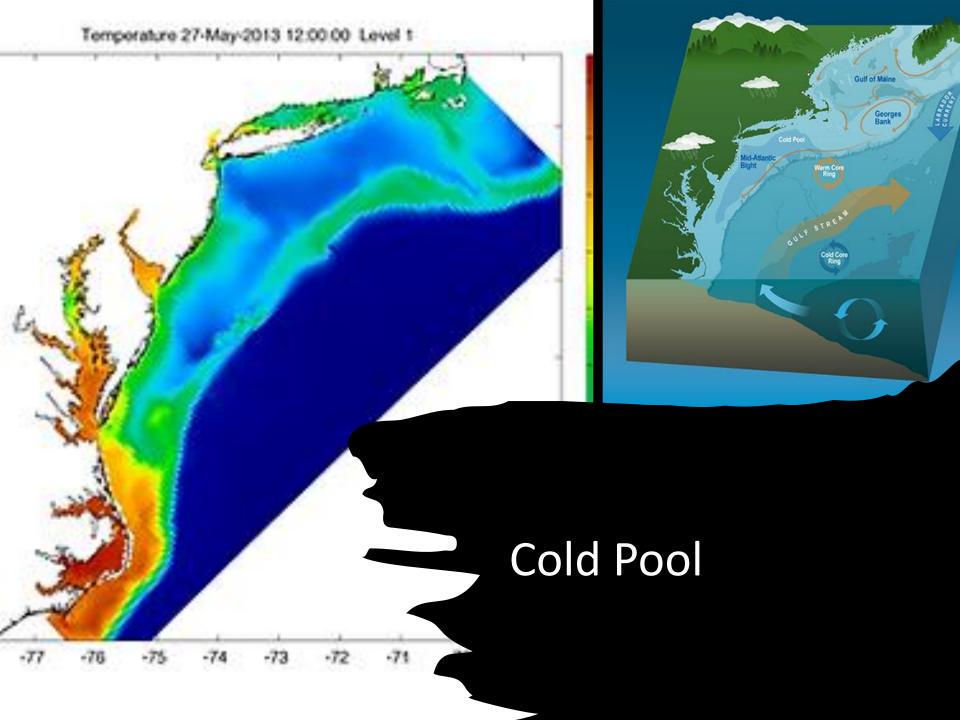
12 MW Turbine Hub



Too Little Research

Many marine scientists agree that little is known about the harm and cumulative impacts from this industrialization of the ocean.







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Figure 20 Wake Effect Fog at Horns Rev 1, Denmark Source: Empire Fisheries comment to USCG-2020-0278

Harassment of Marine Mammals

INearly extinct, North Atlantic Right Whale



Federal IHA Permits

63,820 Marine Mammals



5 More Projects are pending for > 90,000 marine mammals

12 Dead Whales ...











23 dead dolphins

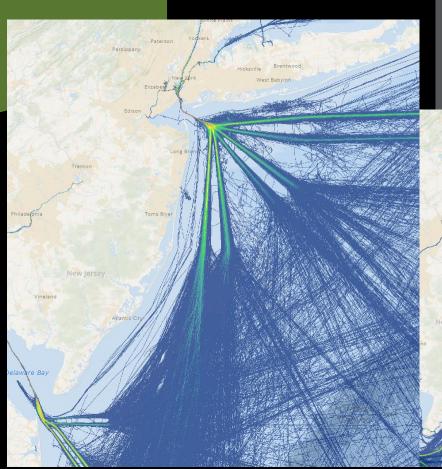


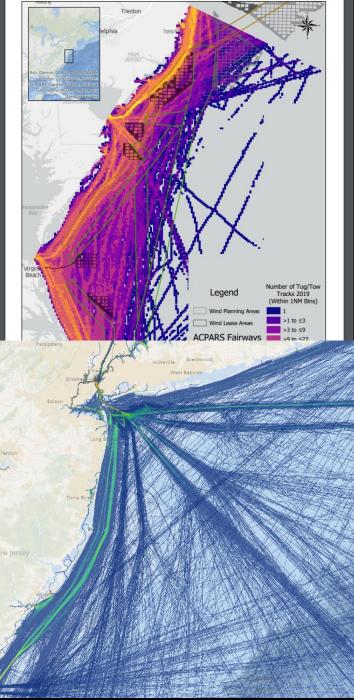
TION

Credit NBC Philadelphia

COA Photo

Shipping: Tankers, Tugs, Containers





11 Active Offshore Wind Preconstruction Development IHAs



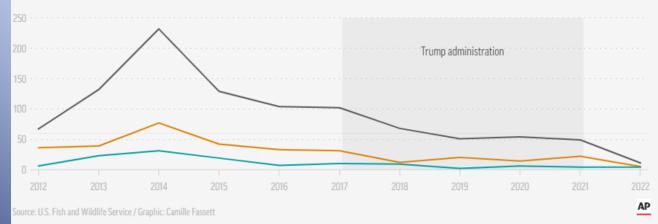
Hear, See, Speak No Evil ?



Criminal cases of deaths and injuries of eagles in sharp decline

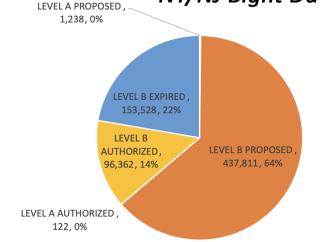
Records of violations under the Eagle Protection Act have fallen in recent years, a decline which sharply accelerated under President Donald Trump. In the last 10 years, about one out of eight cases saw fines, jail, or probation time.

- All violations - Violations with charges - Violations with resulting fines, jail, or probation time



Federal Incidental Harassment **Authorization** (IHA) Marine Mammal **Takes for All Offshore** Wind Development **Projects on the** East Coast*

Take Category	NY/NJ Bight	Atlantic Coast
Level A Proposed Takes	1,238	1,306
Level B Proposed Takes	437,811	524,760
Level A Authorized Takes	122	122
Level B Authorized Takes	96,362	115,611
Level B Expired Takes	153,528	173,104
Totals	689,061	814,903
NY/NJ Bight Data Breakdown		



Impacts to Fish

Pile Driving Impacts:

- Can cause "fish kills."
- Sound wave impacts to 50 miles away
- "Cumulative stress response" that disrupts the ability of fish to feed or spawn.
- Pile driving has the "potential to interrupt migration patterns" for fish.
- "Intense sound pressure waves" may result in "injury or mortality caused by rupturing swim bladders or by internal hemorrhaging," the developers wrote in their approved construction plans.
- Fish with swim bladders Atlantic sturgeon, Atlantic butterfish, Atlantic mackerel, black sea bass, bluefish, haddock, monkfish, ocean pout, red hake, scup, bluefin tuna, yellowfin tuna, striped bass, tautog) ASS Appendix II J-2



NMFS

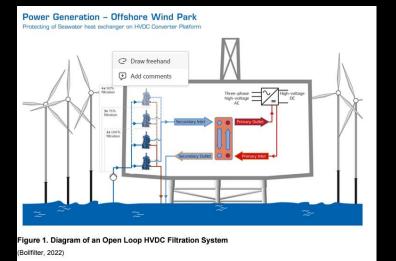
- "We're building this ship as we're sailing it," NMFS scientist Andrew Lipsky said last October at a conference on wind power. "When we don't think through the science, we often get ourselves in trouble."
- "It's frustrating that there aren't clear requirements to avoid an impact to these habitats," said Michelle Bachman, a fishery analyst.
- "There isn't much we have the ability to do."
- BOEM approved the projects despite repeated warnings from the National Marine Fisheries Service about damage to the environment and the fishing industry.

Offshore Substations

- ~One per 50 turbines
- Up to 20+ stories high
- High Voltage cables
- Once through cooling systems.



Once Through Cooling System



7.8 MGD

90 degrees Fahrenheit

2.847 Billion/year

Draft US EPA NPDES permit Sunrise Wind

Large Carbon Footprint

Resources Needed for One Offshore Wind

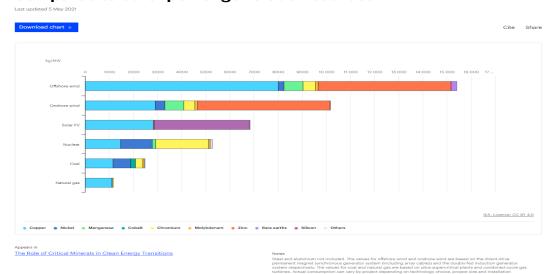
- Concrete
- Steel 120 to 180 tons
- Rare Earth Elements (incl. "conflict minerals")
- Iron
- Fiberglass
- Polymers
- Aluminum
- Copper 63,000 lbs. per WTG
- Zinc
- 28,000 gallons of fluids/WTG
 - (incl. hazardous materials)

Sulfur hexafluoride

- SF6 is the most potent known greenhouse gas.
- ~23,000 more potent than CO2
- SF6 atmospherically stable lifetime of 3,200 years.

Source USEPA Region 2

Minerals/Rare Earth Metals



 \times

Minerals used in clean energy technologies compared to other power generation sources

Source: I Energy A

- Waste
- Oil and fluids
- Operation &
- Maintenance
- Fuel
- Emissions







Efficiency of Offshore Wind Energy

- 55% efficient
- Lose 4.5% / year
- Last 20-25 years

Can withstand only Category 3 Hurricane

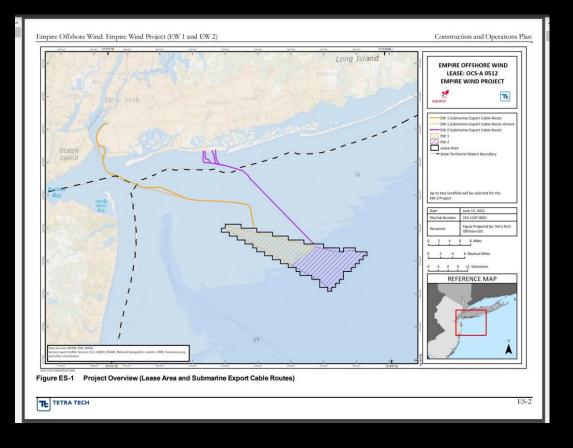
55 mph Winds = "survival mode"

Too Little Transparency on Land

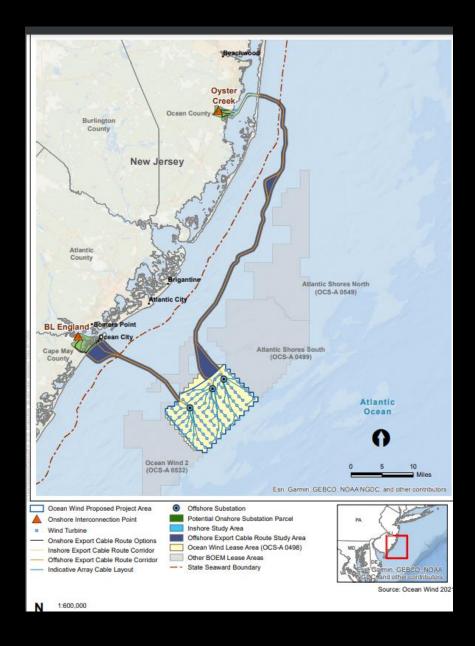
- Onshore impacts unknown
- Need to build ships, ports, construction facilities
- 2021 NJ Law blocking towns rights to limit impacts



Empire Wind



Ocean Wind 1



Atlantic Shores South (2 projects)

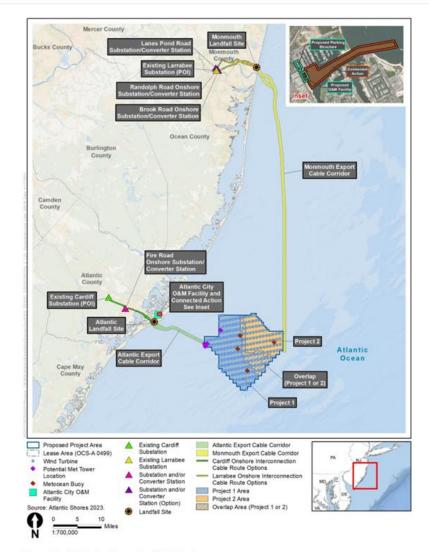


Figure E0-1. Atlantic Shores South Project

Atlantic Shores South (2 for 1)



Atlantic Shores South Ocean Power Plant

- Located **8.7 miles** off New Jersey
- 200 wind turbines, 102,124 acres of ocean
- 4 "large" offshore substations nearly 20-stories high, <u>OR</u> 10 offshore substations over 16 stories high
- Potential for "once-through" cooling systems that will discharge billions of gallons of hot water into ocean per day.
- **2** onshore substations in Howell and Egg Harbor Townships
- **8** transmission cables with landfall in Atlantic City and/or Sea Girt, New Jersey
- 1,025 miles of high voltage cables emitting electromagnetic fields and heat into the seafloor and ocean
- Permanent & temporary meteorological stations & buoys
- Project 1 proposes to produce 1,510 MW. The MW for Project 2 has not been determined.

Vineyard Wind FEIS

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BOEM: Vineyard Wind FEIS



Inflation Reduction Act Devil in the Details

- For 10 years BOEM is prohibiting from leasing OSW unless 60 million acres are offered for offshore oil gas for a total of 600 million acres
- Would > oil and gas by 75% over 10 years
- Opens US territories to Outer Continental Lands VI, Guam, PR
- In Debt Bill Manchin Got a 300 mile pipeline crossing 1000 streams with no environmental review.

Energy Consumption

- USA 103 quadrillion (Btu) per year
 - 17% of total world energy consumption
 - only 4% of the population
- NJ 563 trillion Btu of total US
 - 127 million Btu per year per home
- NJ Cost -- \$3,065 per year
 - among the highest in the country



Energy Waste: One Bitcoin

1,500 kilowatt hours =

• an average U.S. household over 13 years





• Or the annual use of Australia





Too Much Too FAST

Offshore Wind--Done Right PREVENT and REDUCE HARM

- Pilot scale project first -- Monopole and Floating options
- Full transparency of all *onshore* and offshore industrial needs
- True Cost Benefit Analysis
- Restore town rights to control onshore impacts to community
- Comprehensive, independent science & research
- Prioritize Energy efficiency & conservation
- On-land renewable alternatives: cheaper, faster, safer, now

Just the Beginning

More Ocean Industrialization

- Aquaculture on wind power plants
- Carbon sequestration injection
- Ocean mining

OCEAN CLIMATE ACTION PLAN

A REPORT BY THE OCEAN POLICY COMMITTEE MARCH 2023

CleanOceanZone.org

Lock In Progress | Lock Out Pollution

CAPE MAY TO MONTAUK



Recent Good Bi-Partisan News

US Representative Chris Smith – General Accountability Office Study

- Oregon Governor Tina Kotek called on Biden Administration pause ALL offshore wind advancement
 - U.S. Sens. Ron Wyden and Jeff Merkle
 - U.S. Reps. Val Hoyle and Suzanne Bonamici





Questions?

Kari Martin Advocacy Campaign Manager KMartin@CleanOceanAction.org Cindy Zipf Executive Director Zipf@CleanOceanAction.org

732-872-0111