My comment focuses primarily on Appendix E of the DEIS that BOEM would like the public to accept as valid.

There are a great number of knowledge gaps and unknowns that BOEM has labeled as not important, and having negligible or minimal impact. These conclusions are, frankly, bizarre. BOEM needs to go back to the drawing board and create a true Environmental Impact Study as opposed to this hastily prepared word soup that contains no information of substance, and in fact cites "studies" provided by the very corporation that intends to build wind farms. Since no real studies have occurred regarding the effects of offshore wind on marine habitat, there is no basis for concluding that wind turbines should be built in the feeding, breeding and migratory waters off the east coast.

Examples are:

1)…"Because U.S. offshore wind development is in its infancy, with only two offshore wind projects having been constructed at the time of this analysis, there is some level of uncertainty regarding the potential collision risk to individual bats."

Followed by:

"BOEM does not believe that there is incomplete or unavailable information on bat resources that is essential."

2)"…There is uncertainty regarding the spatial and temporal distribution of benthic (faunal) resources and periods during which they might be especially vulnerable to disturbance…" "..specific stimulus-response related to acoustics and EMF is not well studied…"

Followed by:

"…BOEM does not believe that there is incomplete or unavailable information on benthic resources that is essential to making a reasoned choice among alternatives."

3)"…Because U.S. offshore wind development is in its infancy, there will always be some level of uncertainty regarding the potential for collision risk and avoidance behaviors for some of the bird species…"

Followed by:

"…BOEM does not believe that there is incomplete or unavailable information regarding birds that is essential to making a reasoned choice among alternatives."

4)"...Specific data on abundances and distributions within the geographic analysis area of various fauna within these habitats are likely to remain unknown without site-specific surveys."

Followed by:

"…BOEM believes that the analysis provided in this Draft EIS is sufficient to make a reasoned choice among the alternatives."

5)"… It is further practical to assume that the impacts discussed in this Draft Analysis of Incomplete and Unavailable Information E-4 DOI | BOEM EIS are subject to some level of uncertainty. While assessments and determinations were made based on the best available scientific and technical information, including studies by Atlantic Shores, some topics of study related to IPFs remain underdeveloped in existing information. For example, impacts from EMFs and impulsive sound pressure and particle motion are assessed from studies on select species, and existing information does not fully cover all species within the discussed geographic areas. Similarly, specific secondary impacts such as changes in diets throughout the food chain that could result in trophic- or community-level impacts are not well known for finfish and invertebrate communities."

Followed by:

"…BOEM does not believe that there is incomplete or unavailable information on finfish, invertebrate, and EFH resources that is essential to making a reasoned choice among alternatives."

6)

a)"…It is practical to assume that the impacts discussed in this Draft EIS are subject to some level of uncertainty. Studies on potential effects of EMF on marine mammal individuals are underdeveloped, and population-scale impacts have not been assessed…"

b)"…Research on marine mammal impacts from pile-driving noise are limited to studies on harbor porpoises and pinnipeds; research on baleen whale responses to pile driving is lacking…"

c)"…There is uncertainty regarding the long-term cumulative acoustic impacts associated with multiple pile-driving projects that may occur over a number of years. Long-term impacts of offshore wind–related noise including from vessel activity, HRG surveys, geotechnical drilling, and dredging on marine mammals are also uncertain. Because of this uncertainty, it is not possible to confidently predict long-term impacts of noise on marine mammals."

d) "…Without further information regarding these larger WTGs, the extent of these effects is unknown. Research on responses of large whale species to extensive networks of structures is also lacking in the literature, partly due to the novelty of this type of development in the Atlantic OCS"

e) "…Whether marine mammals would avoid structures remains unknown. Additionally, there is some uncertainty regarding changes in hydrodynamic patterns around new structures and how that would impact prey availability"

f) "The potential consequences of these impacts on marine mammals of the Atlantic OCS are unknown."

Followed by:

“At present, this Draft EIS has no basis to conclude that IPFs would result in significant adverse impacts on marine mammal populations. BOEM determined that the overall costs of obtaining missing information for addressing the uncertainties are exorbitant, or the means to obtain funding for those costs are unknown.” “BOEM does not believe that there is incomplete or unavailable information on marine mammal resources that is essential to making a reasoned choice among alternatives.”

7)

a) “It is reasonable to assume some level of uncertainty regarding the effects of some IPFs on sea turtles and their habitats. The effects of EMF on sea turtles are not completely understood; however, the available relevant information is summarized in the BOEM-sponsored Normandeau et al. (2011) study. Evidence suggests that EMF impacts may only occur on hatchling turtles over short distances; however, specific impacts on behavior and EMF thresholds are not known.”

b) “There is also uncertainty about sea turtle responses to proposed Project construction activities, and data are not available to evaluate potential changes to movements of juvenile and adult sea turtles due to elevated suspended sediments.”

c) “Additionally, it is currently unclear whether concurrent construction of multiple projects, increasing the extent and intensity of impacts over a shorter duration, or spreading out Project construction with lower-intensity impacts over multiple years would result in the least potential harm to sea turtles. Other uncertainties include unknown cumulative impacts of pile-driving noise. Impacts that may be cumulative include disruptions to normal feeding, migration, or breeding behavior and secondary impacts such as reduction in prey availability. Under the planned activities scenario, individual sea turtles may be exposed to acoustic impacts from multiple projects in a single day or from one or more projects over the course of multiple days. Although the consequences of these exposure scenarios have been analyzed with the best available information, some level of uncertainty remains due to the lack of observational data.”

d) “Some uncertainty exists regarding the potential for sea turtle responses to FAA hazard lights and navigation lighting associated with offshore wind development.”

e) “Considerable uncertainty exists on how sea turtles would interact with long-term changes in biological productivity and community structure resulting from reef effect of offshore wind structures in the geographic analysis area.”

Followed by:

“BOEM considered the level of effort required to address the uncertainties described in this section and determined that the methods necessary to do so are lacking or the associated costs would be exorbitant”…” BOEM does not believe that there is incomplete or unavailable information on turtles that is essential to making a reasonable choice among alternatives.”

CONCLUSION

The same level of inconsistency and irresponsibility continues throughout Appendix E, describing the uncertainties regarding wetlands, commercial fisheries, recreation and tourism, economics, land use and coastal infrastructure, navigation and vessel traffic and so on. BOEM continually concludes that the proper studies would require more effort and/or money than it is willing to devote to this project already costing hundreds of billions of taxpayer dollars. BOEM is not willing to do its job.

This Environmental Impact Study is not valid and should be discarded. Since no real studies have occurred regarding the effects of offshore wind on marine habitat, there is no basis for concluding that wind turbines should be built in the feeding, breeding and migratory waters off the east coast.