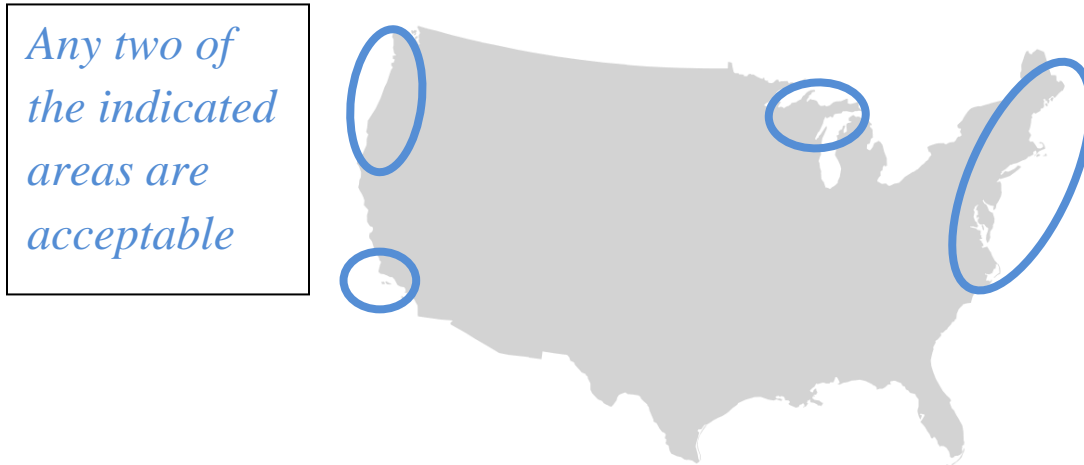


**Round: 2B**

1. On the map, please circle two (2) areas where offshore wind is most powerful for wind energy production.



2. What are two (2) current industry methods for offshore wind turbine support structures?

*Any two (2) of the following: Monopoles, Gravity-based OR Floating platforms*

3. Name and explain one (1) economic benefit of offshore wind turbine energy.

*3 pts for any ONE of the following:*

- Increase in jobs due to manufacturing, installation, and maintenance*
- Potential lower energy costs*
- Lower health care costs from reduced rates of emissions-induced asthma*

4. Name and explain one (1) marine environmental benefit of offshore wind turbine energy.

*3 pts for any ONE of the following:*

- Reduction in CO<sub>2</sub> emission would reduce ocean acidification*
- Reduction in CO<sub>2</sub> emission could help mitigate climate change*
- Physical structure would create vertical habitat*

5. Explain the greatest legal barrier to offshore energy.

*Equipment for offshore projects will cross multiple jurisdictions (1 pt), requiring permitting and approval from multiple agencies (2 pts)*

6. Name and explain one (1) physical barrier to offshore energy.

*3 pts for any ONE of the following:*

- *Water depth*
- *Distance from shore*
- *Hurricanes*
- *Waves*
- *Weather can all damage equipment or limit deployment*

Reference: <http://www.nrel.gov/wind/pdfs/40745.pdf>

Map from Wikimedia Commons user Lokal\_Profil