

# Supporting Communities and Industry for Mid-Atlantic Offshore Carbon Storage Hub Development

DE-FE0032407 (under FOA2799)

**Objective:** Establish a foundation for a carbon capture & storage hub along the Mid-Atlantic outer continental shelf (OCS) in selected parts of the Northern Virginia to Massachusetts region.

- The Mid-Atlantic OCS contains a massive contingent CO<sub>2</sub> storage resource adjacent to major industrial emitters, spanning from the East Coast to Appalachia, including future sources from the ongoing transition to clean energy.
- Many of these sources are likely to be “stranded” due to current limitations in onshore storage options or costs.



## Advancing Technology, Minimizing Risk, Supporting Growth



- **Storage Hub:** Mid-Atlantic Offshore
- **Scenario 1:** Offshore Drilling and Storage
- **Scenario 2:** Onshore Drilling to Nearshore Storage
- **Tier 1 Sources:** East Coast Cement Plants, Power Plants, and Refineries, 41 MT/yr
- **Tier 2 Sources:** Stranded Eastern Appalachian Basin Industrial and Power Plants, Hydrogen and DAC Hub sources, 100+ MT/yr

### Low Risks

- No seismicity
- Few well penetrations
- Experienced project team

### Support

- East Coast Universities
- Additional NGOs
- Carbon Emitters
- Offshore and Coastal Engineering and Environmental Firms
- Data Brokers

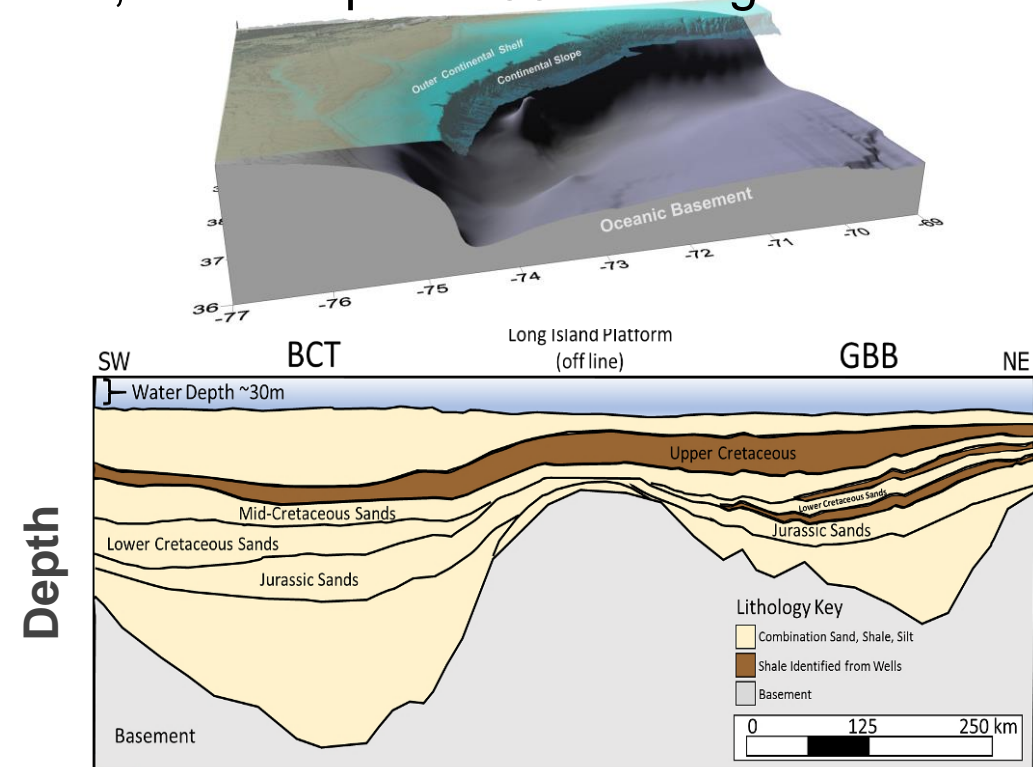
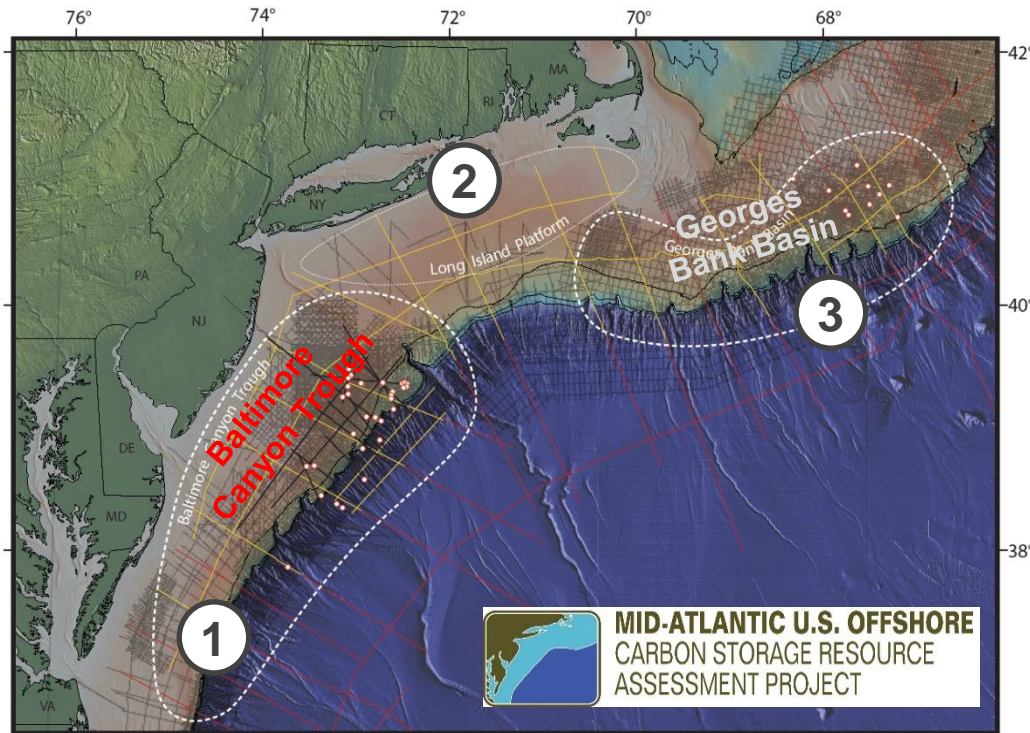


### Community Benefits

- K-12 STEM Engagement
- Community Investments and Improvements
- Education and Training
- Jobs

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- ① **Baltimore Canyon Trough**, ② **Long Island Platform**, and ③ **Georges Bank Basin** are major structures along the mid-ATL outer continental shelf.
- 44 exploration wells drilled 1976-1984 (\$1.5 B), mostly along Great Stone Dome, minor gas shows no production. More than 2000 linear miles of seismic available in area.
- Cretaceous- Jurassic rocks, multiple DSF and seals, water depth <200 m along shelf.

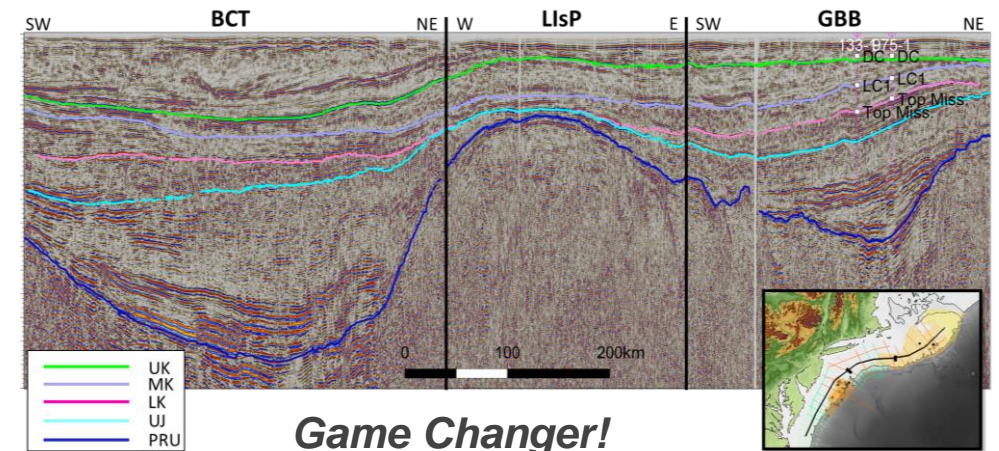
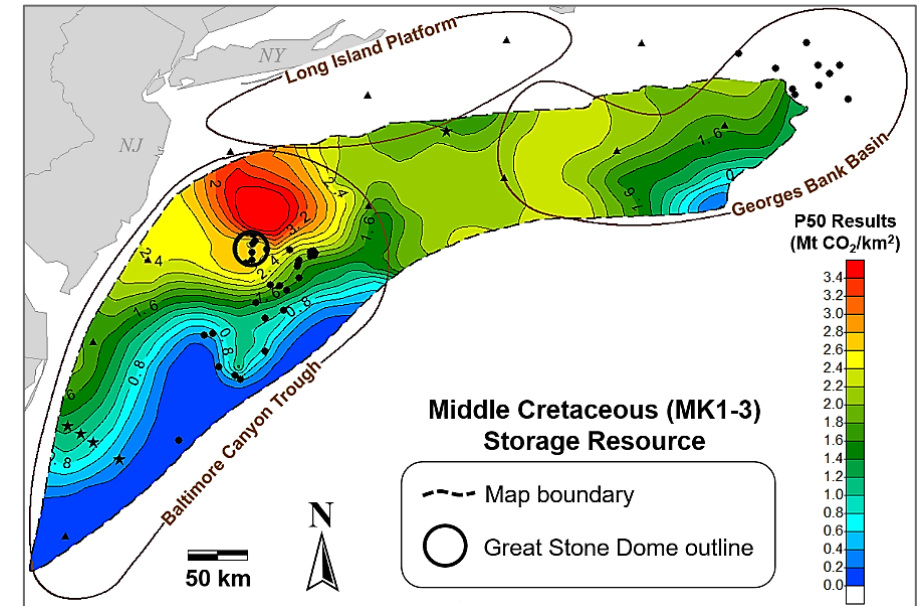


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- Very large storage resource in Mid-Atlantic Outer Continental Shelf: **150-1136 Gt.**
- **Opportunities:** large storage capacity, shallow water along OCS, large area, favorable porosity/permeability, limited development in subsurface.
- **Challenges:** limits on offshore exploration, lack of infrastructure, environmental/stakeholder issues, source-sink routing.
- **Development Plan:** exploration plan, pipeline feasibility for CO<sub>2</sub> sources, offshore drilling, well field, monitoring, logistics, cost-benefit risk analysis, energy transition, community benefits, environmental protection.



**Focus of current project**

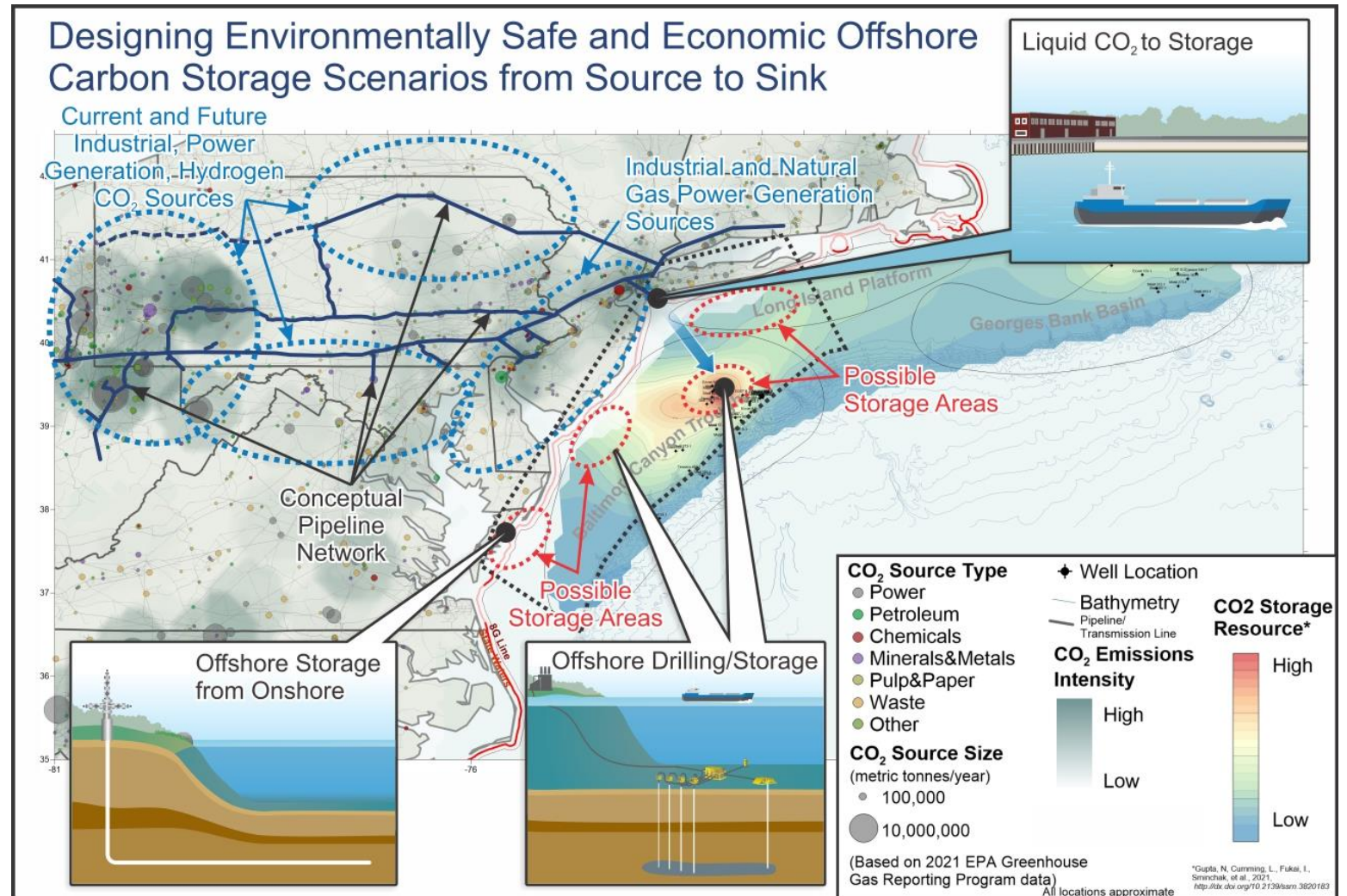


**Game Changer!**



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- The goal is to link current & future CO<sub>2</sub> sources from the East Coast & Northern Appalachian Basin with suitable CO<sub>2</sub> storage options with an environmentally safe focus.
- The project is designed to provide benefits for energy, equity, reduce emissions, and provide quality jobs for critical industry along the U.S. East Coast, where many existing CO<sub>2</sub> sources have no options for CO<sub>2</sub> storage.



# Thanks!!!

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