

2015 Strategic Issue Statement

Improved Data and Planning for Offshore Energy Siting

Ad-Hoc Workgroup Recommendations to the Governors' South Atlantic Alliance

Statement of Challenge

The lack of sufficient data, information, and planning resources serves as a potential challenge to the siting of future offshore energy facilities in the South Atlantic region.

Description of the Challenge

The Department of the Interior's Bureau of Ocean Energy Management (BOEM) recently released the [*2017 – 2022 Outer Continental Shelf Oil and Gas Leasing Draft Proposed Program*](#), which includes a potential oil and gas lease sale off the coasts of Virginia, North Carolina, South Carolina, and Georgia. BOEM also established Wind Energy Areas offshore of Virginia and North Carolina, initiated lease planning for offshore wind development off the coasts of South Carolina and Georgia, and leased an area for hydrokinetic energy testing off the Atlantic coast of Florida. This increase in offshore energy activity in the South Atlantic provides opportunities and challenges for the region.

The environmentally responsible siting of future offshore energy facilities in the region is complex due to the potential for conflicts with existing anthropogenic uses of the ocean and sensitive resource areas. Complications may arise from the potential or perceived impacts on existing coastal economic drivers, such as maritime vessel traffic, tourism, fishing and recreation, and working waterfronts, including the military. Delineating sensitive resource areas offshore, including cultural resource areas, and limited information about human uses such as traditional fishing areas, presents additional challenges. Balancing the relationship between uses and resources is hampered by the lack of baseline information on environmental conditions that would allow accurate assessment of future environmental conditions and potential conflicts with future ocean activities that may not exist today. These factors could ultimately lead to delays in permitting or extensive litigation, now and in the future.

To support decision-making for offshore energy exploration and production facilities (renewable and petroleum-based), and related onshore activities, additional investments are needed in policy analysis and data collection. There are existing federal and state processes in place to support planning and decision-making for offshore energy development; however, to reduce conflict for initial planning and to ensure long-term data and information needs are met, a collaborative framework that encourages communication and coordinated solutions across governments and with stakeholders from multiple sectors is needed. The South Atlantic region currently lacks resources to support a collaborative approach to planning, research, and monitoring that would improve the overall efficiency and effectiveness of offshore energy development.

Recommended GSAA Strategies for 2015

Significant efforts by many state and federal agencies are underway to gather data and information to inform decision-making on offshore energy siting. By joining with ocean stakeholders in the region, the GSAA can help synthesize existing data, identify and fill data gaps, identify potential use conflicts with commercial, military and other ocean operations, and improve understanding and mapping of sensitive resources areas. Investments in collecting and organizing the data and information necessary to address questions of suitability and ecological impacts, in advance of offshore energy siting decisions, will promote permitting efficiency and improve development opportunities, as well as limit negative impacts.

The Ad-Hoc Workgroup on “Improved Data and Planning for Offshore Energy Siting” recommends the following strategies and actions for GSAA support in 2015:

Strategy 1: The South Atlantic needs informed political leaders and stakeholders across the region on the potential environmental and economic challenges, impacts, and benefits from offshore energy siting.

- Action 1.1: The GSAA will facilitate information sharing among GSAA partners on outreach activities taking place across the region on offshore energy activities.

Strategy 2: The South Atlantic needs baseline environmental data identifying areas in need of additional data and monitoring to fully understand potential ecological impacts that may result from oil spills or other anthropogenic disturbances along the Atlantic seaboard.

- Action 2.1: The GSAA will facilitate the establishment of a South Atlantic Research Initiative (similar to the Gulf of Mexico Research Initiative), which will be a collaboration among industry, government, and other stakeholders on decisions regarding scientifically driven baseline environmental monitoring needs. Funding of \$500 million over 10 years is estimated to be the needed investment from industry to support this initiative.
- Action 2.2: The South Atlantic Research Initiative will conduct an inventory of and identify a data repository for all existing long-term data and publications on pelagic, benthic, estuarine, and coastal ecosystems, pelagic and microbial food webs, oceanic and atmospheric processes, and shoreline habitats that have been collected by partner institutions and agencies over the past two decades.
- Action 2.3: The South Atlantic Research Initiative will gather scientifically based baseline information/data on these known ecosystems, food webs, and processes, submit the data to a centralized repository for baseline environmental data, and will host a series of conferences/workshops to assemble the data.
- Action 2.4: The South Atlantic Research Initiative will identify, prioritize, and conduct additional region-wide surveys to map areas where data are lacking.

Strategy 3: The South Atlantic needs coordination across South Atlantic academic institutions with expertise in offshore energy research, data, and information.

- Action 3.1: The GSAA will facilitate the development of an academic-led community of practice on offshore energy research to enhance data collaboration and sharing efforts via the GSAA Portal. The GSAA Executive Group/Steering Group will invite the participation of academic leaders at institutions known to be conducting such research. The functions of the network will be supported by the participating partners.

Strategy 4: The South Atlantic needs a framework for coordinating data and information available from existing sources (federal, state, non-governmental) to support efficient decision-making.

- Action 4.1: The GSAA will establish a Data and Information Coordination Network to determine data and information needs that could assist in offshore energy siting decisions and the appropriate geography for data and information gathering in the South Atlantic Region. The GSAA Executive Planning Team will invite technical experts from multiple sectors to participate in the Network. The Network will be responsible for coordinating existing data, identifying and prioritizing data gaps, vetting and verifying data products for inclusion in the GSAA Coast and Ocean Portal, and guiding Portal expansion based on available funding. \$50,000 per year will be needed to support the functions of the Network and the ongoing maintenance of the GSAA Coast and Ocean Portal.

- Action 4.2: The GSAA Executive Group/Steering Group will request that offshore energy industries consult with the GSAA Data and Information Coordination Network to identify where and when environmental and ecological data collected by companies (e.g. geological and geophysical data, marine mammal sighting data) could be made publically/more broadly available. As part of these consultations, the Network will highlight for industry the ways in which engaging in regional data and information coordination facilitates efficiencies in permitting offshore energy development.

Strategy 5: The South Atlantic needs data and information for hub-height offshore wind resources in the South Atlantic region.

- Action 5.1: The GSAA Data and Information Coordination Network will coordinate with the Southeast Wind Coalition and other partners to explore opportunities for multiple types of offshore data collection within or near BOEM wind energy areas (e.g. LIDAR, SODAR, towers). This partnership will start by collecting and processing information from land-based towers and SODAR (SOmic Detection and Ranging) that can contribute to our understanding of offshore wind resources and the variability across states. Current funding for observational equipment is largely from industry; further funding could be sought from federal and state agencies to build the network and expand offshore. Funding estimates for this initiative would require approximately \$500,000 in the first two years.
- Action 5.2: The partnership will work to identify a hub height tower for the South Atlantic and additional LIDAR buoys or other offshore data collection devices to validate the tower data and create a network of information with existing data from SEWC's regional met measurement effort. Through the partnership, this effort would look for support from the states, Department of Energy, NOAA, and industry. Overall support for such an initiative would range from \$8-12 million over 3 years.

Strategy 6: The South Atlantic needs improved data on human uses (commercial, recreational, and cultural) of the South Atlantic, to support conflict management for offshore energy development.

- Action 6.1: The GSAA Data and Information Coordination Network will conduct focus groups, user surveys and interactive mapping charrettes to map existing ocean uses in the region. Initial surveys would identify and prioritize human use data layers for understanding the relationship to offshore energy siting. Estimated funding required to launch this initiative and develop the appropriate methodology would be \$100,000 from BOEM, other federal sources, or private foundations.
- Action 6.2: The GSAA Data and Information Coordination Network will work to identify and prioritize potential future or new coastal uses that must be mapped in order to effectively plan for offshore energy siting.
- Action 6.3: The GSAA Data and Information Coordination Network will review and assess the status of existing information regarding onshore impacts of offshore energy activities and planning for onshore infrastructure issues. Existing work at local, state, and federal levels would be captured, as well as information available from industry (such as ports, utilities).

Strategy 7: The South Atlantic needs available, accurate data on known sensitive habitats in the South Atlantic region through the GSAA Coast and Ocean Portal.

- Action 7.1: Building on existing efforts, the GSAA Data and Information Coordination Network will identify and prioritize significant gaps in, communicate mapping needs for, and synthesize relevant existing information on known sensitive habitat maps (e.g. hard bottom habitat for fisheries, reefs, seagrasses, endangered species habitat, deep-water corals) in state waters and where resources allow, beyond state waters. The Network will identify resources for prioritized data needs, leveraging resources from existing efforts, such as

BOEM Environmental Studies (the GSAA submitted a hard bottom mapping project that was accepted into the BOEM 2016 Environmental Studies Plan), NOAA SEFSC Habitat Mapper, or USGS initiatives. New mapping and validation of models used to predict where sensitive habitats are, including in areas beyond the continental shelf edge, would require additional funding from federal and state agencies. Funding requirements would need to be assessed based on prioritized data needs.

- Action 7.2: The GSAA Data and Information Coordination Network will explore opportunities to expand into the South Atlantic the work of Duke's Marine Life Assessment and other existing analyses/modeling efforts for marine life data to improve our understanding of offshore migratory species related to offshore energy activities.

Strategy 8: The South Atlantic needs reduced uncertainty for industry through standardized collection and submission protocols for data needs that would be necessary for the states to review offshore energy projects. This would allow industry to know what each state requires beforehand, allows for more efficient data collection and distribution if projects straddle two or more states, and facilitates standardized monitoring so that comparisons can be made across the region.

- Action 8.1: The GSAA Data and Information Coordination Network, based on the guidance of state permitting agencies, will identify data/information needs (spatially, temporally, species level, etc.) necessary for the states to review bottom disturbing and pelagic actions/projects proposed for offshore, including those needed for any ancillary activities (e.g. pipelines, onshore facilities, increases in port traffic, spill response needs) and prepare a standardized protocol for all South Atlantic states. Data requirements for a specific state, beyond the standardized listing, will be noted. A minimum of \$30,000 would be the estimated need for this initiative.

Strategy 9: The South Atlantic needs to understand existing federal agency stipulations and mitigation measures to determine which, if any, are applicable to the South Atlantic, or if new processes may be needed.

- Action 9.1: The GSAA Executive Group/Steering Group will request that relevant Federal Agencies collaborate with the states to review appropriate stipulations and mitigation measures relevant for the South Atlantic. This should include evaluation of measures in place in other parts of the country to identify potential gaps and ensure all relevant measures are applied.

The expected outcomes of these strategies include:

- *Coordinated and collaborative approaches to collecting and organizing data and information needed for prudent, efficient decision making on offshore energy development*
- *Investments leveraged from multiple sources to support the planning activities the South Atlantic is undertaking*