

Impact Assessment and Permitting for Offshore Wind



Given the large number of projects that AECOM plans and designs each year, our staff is sensitive to the design process and is acutely aware of optimal approaches for coordinating designs with regulatory requirements. This high-level strategizing leads the team down the path to a cost-effective, constructible, and compliant engineering solution.

Areas of Expertise

- Site Assessment Plans (SAP)
- Construction and Operations Plan (COP)
- Subsea Marine Cable Routing Analysis
- Onshore Environmental Impact Assessments
- Social Impact Assessments
- Stakeholder Engagement
- Next-Gen Data Capture
- Federal and State Permitting Support

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Overview

Offshore wind (OSW) developers need full-service environmental consulting firms who understand the complexities of planning, permitting, and implementing large-scale infrastructure projects. AECOM has direct and extensive experience with developing the necessary regulatory requirements toward permitting commercial scale OSW projects. Not only does this include our expertise with preparing a SAP and COP packages but also with moving permitting forward with BOEM.

Our Approach

AECOM believes that the successful development of a strategically sound SAP and COP starts with experienced OSW permitting program leads. We offer an experienced, results-oriented team with a successful history of delivering planning, environmental/permitting and design work for OSW projects, including facilities supporting OSW component handling. Our experienced team seamlessly integrates with diverse stakeholder work groups or consultants necessary to develop successful projects.

We assign strong leaders in each discipline to manage work activities and deliverables with a focus on driving the schedule and budget. These leaders are supported by SMEs who provide specialized insight into technical areas, helping us to execute the work efficiently and with the quality expected by our clients. We employ a deep bench of OSW expertise, coupled with permitting and environmental SMEs who have provided leading wind energy consulting expertise.

Areas of Proven Expertise

SITE ASSESSMENT PLANS (SAP). The Bureau of Ocean Energy Management (BOEM) requires the leaseholder to submit a SAP within 12 months of lease execution. The SAP will describe the initial activities necessary to characterize a site within a lease area (e.g., geophysical and geotechnical surveys, installation of metocean buoys) resource assessment surveys. (e.g., meteorological and oceanographic data collection, archaeological/cultural resources, or technology testing activities that involve the installation of bottom-founded facilities (e.g., Light Detection and Radar [LiDAR])). BOEM requires the results of site characterization studies to be submitted with a SAP pursuant to 30 Code of Federal Regulations (CFR) 585.610(b) within 12 months of lease execution. AECOM has completed a SAP through successful permitting and BOEM approval for an active OSW lease area in the Massachusetts Wind Energy Area. This included analyzing field data such as high-resolution geophysics, benthic biology, paleo landscapes, and other natural resources. Our SAP was not only well-received by our client and BOEM but was returned to us with only a few minor editing requirements. This direct experience gives AECOM leverage and institutional knowledge toward strategizing and developing a SAP for clients.

CONSTRUCTION AND OPERATIONS PLAN (COP). The COP is a detailed plan which provides a description of all proposed activities and planned facilities (onshore and offshore) for the lease area for the construction and commercial operation of an OSW energy project submitted to BOEM by the developer. AECOM's team has current, up-to-the-minute understanding of BOEM's complex and intricate requirements for COP submittal and has developed strong

relationships based on mutual respect with BOEM regulators. This strong working relationship is instrumental in maximizing efficiencies for COP studies and submittals.

The COP includes data and results from the studies and survey investigations (including those conducted to support the SAP) and provides the analysis of direct and indirect environmental and socioeconomic effects resulting from the offshore wind farm project. We have a deep bench of OSW permitting professionals and technical SMEs within our OSW Practice that lead federal and state permitting, including the development of COPs for two OSW developers in the Northeast.

Pursuant to 30 CFR 585.601, BOEM requires COP be submitted only after a project proposal is clearly defined and there are sufficient data and information for BOEM to conduct technical, National Environmental Policy Act (NEPA), and other required reviews. AECOM has experience with providing support to develop COP strategies and schedules to incorporate data from multiple survey campaigns and contractors. We have provided OSW developers with the full suite of aspects for COP preparation and submittal including designing survey plans to support COP completeness; project permitting at the federal, state and local level; geographic information systems (GIS) project support; and ongoing stakeholder consultations and engagement throughout the review process. As the primary COP writer, AECOM has also authored most of the COP and technical appendices within timelines set by clients. AECOM has conducted regular consultations with numerous federal and state agencies to reduce uncertainty, improve transparency, and minimize conflicts with regard to project development.



Impact Assessment and Permitting for Offshore Wind *(continued)*



Key AECOM Attributes

- Ability to support OSW development from concept to construction
- Access to full-service environmental and engineering capabilities through global/nationwide network
- Local experience with national SMEs

SUBSEA MARINE CABLE ROUTING ANALYSIS. Desktop study constraint analyses for planned marine cable infrastructure projects help build a foundational baseline to design cost-efficient cable systems with minimal and/or controlled risk exposure. AECOM's marine routing team builds marine route analyses that are tailored to clients' goals and engineering needs. Our team of experts combine an in-depth knowledge of the marine natural environment and human uses with engineering, and permitting expertise to build detailed marine routing desktop assessments. The output of the desktop study assessment process includes blueprint marine routes to support our client's downstream project milestones and a catalogue of identified risks with potential mitigation strategies for the planned project footprint. In addition, the analysis process produces recommendations for future research and/or assessment to help clients build viable and cost-effective marine routes.

ONSHORE ENVIRONMENTAL IMPACT ASSESSMENTS. AECOM has prepared hundreds of environmental site assessments, environmental assessments, and environmental impact statements and reports for energy projects including solar, wind, geothermal, waste-to-energy, small-scale hydro, transmission lines, and other linear facilities.

SOCIAL IMPACT ASSESSMENTS. We bring to each project a complete, diverse, and interdisciplinary team of experts to holistically analyze potential environmental and social consequences, actively engage stakeholders, and attempt to fully integrate environmental justice into our project planning process. AECOM brings our clients globally - tested innovations, including digital equity analytical tools that help our clients plan and build smart, resilient projects that benefit all citizens - truly achieving optimal triple bottom line outcomes.

STAKEHOLDER ENGAGEMENT. AECOM's community relations experts have been assisting OSW developers by implementing successful, cost-effective public involvement programs to support complex environmental projects for many private and public sector clients. Recent AECOM advancements in digital tools have allowed projects to engage with stakeholders online to keep projects moving along and engage audiences.

NEXT-GEN DATA CAPTURE. As part of our PlanEngage approach toward projects, AECOM's suite of Next-Gen data capture techniques enables us to collect data that is reliable, rich, and relevant to our customer's needs. These data capture techniques enable us to collect data faster and more accurately, reducing cost of labor and travel costs. The high-quality, near real-time, and interactive visual data reporting techniques also improve consistency and turnaround time. We utilize drones/remote sensing technologies to collect previously inaccessible data, thereby enriching data sets and improving safety.

FEDERAL AND STATE PERMITTING SUPPORT. In addition to the BOEM SAP and COP, as noted in the **ENVIRONMENTAL PERMITTING & SOCIAL IMPACT ASSESSMENT** list, there is a complex federal, state, and local permitting process that will run concurrently with or tangentially to the BOEM process. One of the keys to an OSW project progress is making sure projects not only comply with federal laws, but also address the required state environmental, resource, and coastal management plans, and in some states, the regional and local permits and approvals. AECOM works with clients to support the federal and state regulatory review of a proposed Project. As the lead federal agency, BOEM will lead and coordinate environmental review of the project under the NEPA.

