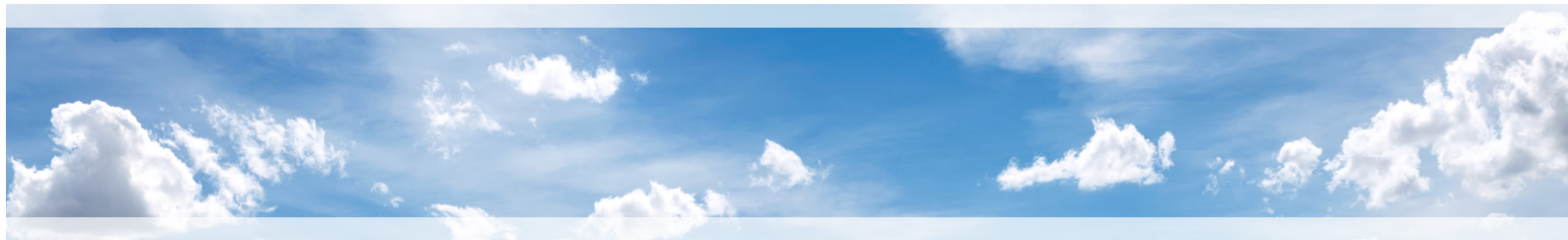




WORLD

OFFSHORE WIND SERVICES





SWCA Environmental Consultants has a deep bench of professionals who understand the unique challenges in developing offshore wind energy. Whether working directly with the Bureau of Ocean Energy Management (BOEM), with other pertinent agencies, or with offshore wind developers, SWCA understands offshore project needs – from effective stakeholder engagement, site assessment, and geotechnical and geophysical survey plan preparation and permitting and survey implementation to development of construction and operation plan and associated technical analyses that meet BOEM and cooperating agency requirements.

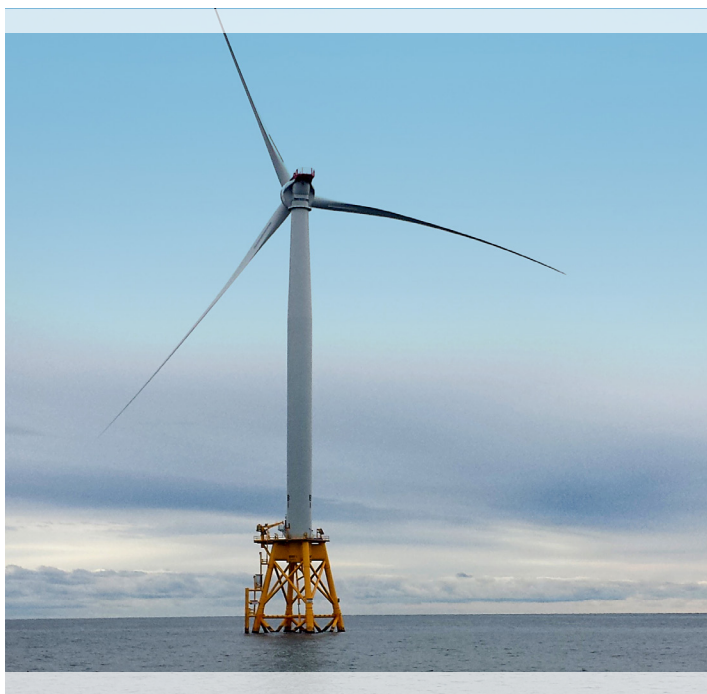
We also are well-versed in the preparation of legally defensible National Environmental Policy Act (NEPA) documents that meet recent Department of Interior (DOI) BOEM requirements and we are managing many EISs that are being processed under FAST-41.

Offshore projects face tremendous regulatory and public scrutiny and involve cutting-edge renewable technologies that will require a fundamental shift in stakeholder perspectives to avoid uncertain outcomes.

## SWCA BELIEVES THAT SUCCESS LIES IN:

1. Building close partnerships with our clients and stakeholders
2. Assembling the most qualified team from among our in-house experts and long-standing teaming partners
3. Preparing scientifically and legally defensible data, analyses, and documentation

We can help you develop comprehensive environmental analyses, meet your environmental commitments, and minimize delays to see your projects implemented on time and on budget.



*Public meeting facilitation and stakeholder engagement*

## TRACK RECORD OF SUCCESS IN EVER-CHANGING LANDSCAPE

We have strategies and knowledge to address the challenges that arise from the rapidly growing offshore wind industry. We're a reliable environmental partner through the development and planning process, the permitting process, and the construction and operation phases.

## DEDICATED TEAMS OF EXPERTS NATIONWIDE

SWCA can mobilize and customize the right team for every project – from NEPA experts to natural resource scientists, geologists, planners, technical experts and teaming partners in marine biology.

# CAPABILITIES

SWCA has hundreds of in-house experts and trusted teaming partners nationwide. Together we can attend to every environmental detail of offshore wind projects.

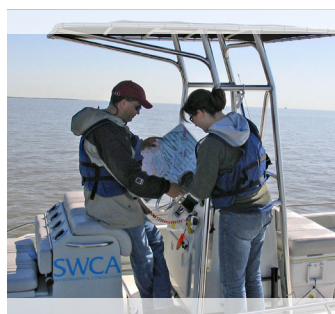
## DEVELOPER SUPPORT:

- Geotechnical and geophysical survey plan development, coordination with BOEM, permitting, and implementation
- Visual simulations
- Fatal flaw analyses
- Siting and Routing Analysis
- Bird and bat surveys, studies, and conservation strategies
- Marine Mammal Protection Act consultations and compliance
- Fisheries, essential fish habitat assessments and benthic surveys and analysis
- Threatened and endangered species presence/absence surveys
- Biological Assessments and Endangered Species Act (ESA) Section 7 consultation support
- Coastal Zone Management Act consistency reviews
- Commercial fisheries and comprehensive socioeconomic analyses
- Clean Water Act permitting for wetlands and water quality (including environmental justice)
- Onshore and marine archaeology assessments and Section 106 consultations
- Native American Tribal coordination and consultations

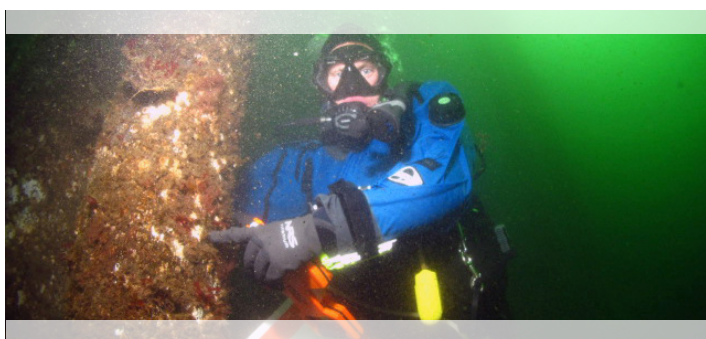


Marine Mammal Protection Act consultations and compliance

NOAA



Fisheries and essential fish habitat assessments



Marine archaeology assessments and Section 106 consultations

## LONG-STANDING, POSITIVE RELATIONSHIPS

Our relationship with BOEM and other federal agencies that have jurisdiction in the marine environment (U.S. Army Corps of Engineers, National Marine Fisheries Service, U.S. Environmental Protection Agency, U.S. Fish and Wildlife Service, among others) as well as with Native American Tribes, provides us with an understanding of how these entities work and what information they need to streamline the permitting process and help you make well-informed, strategic decisions.

## SOUND SCIENCE, IN-DEPTH POLICY EXPERTISE

Our documents and reports are scientifically accurate, defensible, and fully compliant with all regulations.

## EAST COAST POWER AND ENERGY EXPERIENCE

SWCA Environmental Consultants (SWCA) specializes in turn-key project development for power and energy projects including renewable energy (solar and offshore and onshore wind), transmission, and interconnection as well as oil and gas (O&G). We have nationwide technical expertise in natural and cultural resources management, environmental planning, permitting and compliance, environmental documentation and reporting, and large-scale restoration. We have built a dedicated offshore wind team who has been providing services to offshore wind developers for the last decade. Additionally, SWCA is working with Bureau of Ocean Energy Management (BOEM) on several third-party environmental impact statements (EISs) as well as early-stage permitting and agency coordination for onshore transmission at offshore wind landfall locations on the East Coast. Having walked with our clients through the evolution of offshore wind from some of the very first projects to the present day, we possess a wealth of critical, insider knowledge which enables us to anticipate, and proactively avoid, potential hurdles that can adversely affect your project timelines. SWCA has decades of permitting experience for large infrastructure including transmission, generation, and renewable energy projects including offshore wind in the Northeast/Mid-Atlantic and across the United States. Many of our power and energy projects involve coastal and marine resources as well as the terrestrial resources.



**SWCA MID-ATLANTIC OVERVIEW**

- 7 offices in the Eastern United States
- More than 150 East Coast employees including NEPA experts, environmental planners, natural and cultural resource specialists, and GIS staff

**ENERGY AND POWER EXPERIENCE**

- 2550+ renewable energy projects nationwide
- 600+ Mid-Atlantic renewable projects
- 200+ renewable energy clients in the Mid-Atlantic

**WIND ENERGY + NEPA**

- 930+ Wind energy projects and nearly 100 NEPA documents managed or contributed to

## POWER AND ENERGY EXPERIENCE IN U.S. EAST COAST MARKETS

SWCA is a leader in the development of renewables projects along the East Coast. Our vast resources, operational flexibility, and geographic presence allow us to provide you the exact level of service you need. SWCA provides industry-leading, science-based permitting, siting, and environmental services and compliance-focused solutions for construction, operations, and maintenance. SWCA leverages our deep bench of offshore/coastal and onshore generation and transmission services along with our submarine cable routing, assessment, and permitting experience to successfully navigate the offshore wind regulatory process. SWCA supports our clients with initial project scoping and planning, including due diligence, critical issues analysis, and stakeholder engagement. We have experience with all local, state, and federal permitting and provide construction support. Our terrestrial permitting and siting services include field surveys, evaluation of points of interconnection, routing, and alternatives assessments.

Renewable projects have several obstacles to overcome before a project is constructed and operational. These obstacles include regulatory compliance requirements, seasonality restrictions for field investigations, market timing, financial constraints, and community opposition all complicate the pathway for approval. SWCA provides our clients with creative, innovative, and strategic regulatory pathways for approval and compliance. These plans provide the most efficient path to project completion, saving our clients time and money.

With offices in Massachusetts, Maine, Pennsylvania, and North Carolina, as well as distributed employees located in every East Coast state including Connecticut, Rhode Island, South Carolina, Delaware, Virginia and New York, we understand the regulatory complexities that exist and overlap within the offshore, nearshore, and onshore environments. We offer local expertise, knowledge, and responsiveness that is backed up by our regional and nationwide presence for expert offshore wind development in the Northeast/Mid-Atlantic.



### **SWCA has East Coast-based staff who have been developing, permitting, and evaluating projects for decades.**

With more than 150 East Coast staff members reporting to our 7 East Coast offices, we support clients with a wide range of natural and cultural resources services through the entire project life cycle, from site assessment to applications and permitting to post construction monitoring. For example, we have provided environmental assessments for numerous projects including a large solar facility in West Virginia, over 800 acres of proposed land for a 69 MW development in Maryland, and multiple projects for Cypress Creek Renewables totaling more than 305 MW of generating capacity in New York. SWCA has also provided cultural resources support for DEQ 'Permit Rule' process for a utility scale solar facility in Virginia, a Phase 1B Archaeological survey of a proposed solar facility on 500 acres in Virginia, and visual studies in support of a visual impact assessment compliant with Article 10 in New York. Our staff has extensive experience siting and securing more than 50,000 acres of lease area for multiple proposed wind facilities in the Carolinas and has even successfully negotiated the first Memorandum of Agreement between the Department of Defense Siting Clearinghouse and a private developer for a wind project in North Carolina. We also have staff who has served on the North Carolina Wind Working Group and as chair of the Southeast Wind Coalition Board of Directors, thus staying current on industry regulations and best practices.

**Natural and cultural resource assessments, siting, permitting, and construction expertise.** We specialize in all areas of natural resource management including planning, mitigation, and permitting related to the National Environmental Policy Act, Endangered Species Act, Clean Water Act, and other critical legislation for terrestrial and aquatic species and their habitats. As a firm, our siting experience has focused on the identification of utility-scale solar photovoltaic sites and the micro siting of transmission infrastructure. We have also supported the micro-siting of wind turbines for a confidential onshore wind project in North Carolina. Our cultural resources specialists are well versed in Section 106 and state level laws and regulations. SWCA meets the requirements of the Secretary of the Interior's Standards and Guidelines and holds numerous federal and state permits that allow us to provide cultural resources services throughout the country and has extensive experience with the National Historic Preservation Act and is providing section 106 consultation support for three offshore wind projects on the Atlantic OCS. Our cultural resource managers are approved by State Historic Preservation Offices to work in every state on the East Coast.

**We understand transmission planning and policy.** As a firm, SWCA has surveyed and permitted hundreds of new and upgraded transmission projects across thousands of transmission lines, distribution lines, and substations across Eastern states for various clients including Enbridge, Kinder Morgan, Eversource Energy, National Grid. We have assisted clients with O&G projects including a Maine Department of Environmental Protection Site Location of Development Act Permit for construction of a new meter and regulation station and interconnection for a pipeline in S. Berwick, Maine. SWCA provided environmental inspection services during the construction phase of not only this project, but several other projects requiring a FERC Certificate of Public Convenience and Necessity pursuant to Section 7c of the Natural Gas Act. We also provide environmental permitting for Eversource's Western Massachusetts Transmission Right-of-Way Reliability Program, cultural resources surveys and consultations for National Grid's 47-mile A1/B2 transmission structure replacement project, and construction compliance monitoring services for Eversource's underground transmission Sudbury to Hudson Reliability Project. SWCA is also supporting Enbridge throughout their Northeast transmission network including replacement of transmission in aquatic habitats.

## **EAST COAST OFFSHORE WIND EXPERIENCE**

**We know what it takes to develop an offshore wind project.** Our National Offshore Wind Lead Whitney Fiore's direct experience working in the industry allows us to leverage our institutional knowledge of the development process from a developer's perspective. Many of SWCA's staff have worked on construction and operations plans and survey campaigns and understand first-hand the offshore wind project process. This experience has led to a long history and continued working relationship with many renewables clients such as Orsted, Invenergy, Avangrid, and RWE, among many others.

**We know and work with the BOEM in the offshore wind space.** SWCA prepared the South Fork Wind Farm Final EIS for which a Record of Decision was issued in November 2021 and has not been challenged in U.S. courts. We are currently preparing the EIS for Revolution Wind and have pending contract for another third-party EIS on the Atlantic OCS. We have experience working on environmental assessments for several offshore wind energy areas which provides us with in-depth knowledge of the multiple data portals that house the information needed to prepare a variety of analyses.



# WEST COAST POWER AND ENERGY EXPERIENCE

## INTRODUCTION

The SWCA OSW Team has been providing services to offshore wind developers for the last decade, and we are currently working on early-stage permitting and agency coordination for onshore transmission at landfall locations on the East Coast. Our work includes a long history of supporting offshore wind projects on the East Coast as well as decades of permitting experience for large infrastructure including transmission, generation, and renewable energy projects in California and across the United States. Many of our projects involved coastal and marine resources as well as the terrestrial resources that are part of the onshore substation siting and gen-tie for an offshore wind project. In addition, SWCA has been co-chairing the American Clean Power/Offshore Wind California (ACP/OWC) Permitting Workgroup and supporting industry through agency discussions, permitting strategy development, and stakeholder engagement. We can help you develop comprehensive environmental analyses, meet your environmental commitments, and minimize delays to see your projects implemented on time and within budget.



**Figure 1. SWCA overview and experience.** Our team has the depth and resources to conduct an effective review of California offshore wind constraints.

## EXPERIENCE IN U.S. WEST COAST MARKETS AND PHYSICAL PRESENCE

The SWCA team provides expertise well suited to support offshore wind development off the California coast. With offices across coastal California, including one in San Luis Obispo and three in the Bay Area, SWCA's staff understand the regulatory complexities that exist and overlap within the offshore, nearshore, and onshore environments. SWCA has seven offices in California with local expertise, knowledge, and responsiveness that is backed up by our regional presence (Figure 2).

**1. SWCA has California-based staff who have been developing, permitting, and evaluating projects on the Central Coast for over two decades.** With more than 250 staff members reporting to our seven California offices, this state represents one of SWCA's largest and fastest-growing regions. Our projects and experience include working in the nearshore and onshore environment for clients such as Pacific Gas and Electric (PG&E) at the Diablo Canyon Facility; PG&E, Duke, and Dynegy at the former Morro Bay Power Plant; and the County of San Luis Obispo, City of Morro Bay. Our experience in the offshore environment includes projects such as the Worldcom Fiber Optic Cable Project and PG&E Humboldt Bay 60-kilovolt (kV) Reconductoring Project.

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**2. SWCA co-chairs the ACP/OWC permitting workgroup.** SWCA is an active member of the ACP and OWC and was asked to act as co-chair for the ACP/OWC Permitting Workgroup, which meets biweekly. In this role, SWCA works with stakeholder groups, industry, and regulatory agencies. SWCA has prepared maps, graphics, timelines, and permitting matrices as well as a commercial fishing analysis. We also wrote the permitting section of a report prepared for the California Public Utilities Commission (CPUC) in 2021 (currently being updated), provided testimony at both Coastal Commission Hearings for the Humboldt Bay and Morro Bay Wind Energy Areas (WEAs), and recently coordinated and facilitated a technical briefing on post-lease activities attended by over 100 California state and federal regulators.



**Figure 2. Map showing SWCA office locations**

**3. SWCA has an organized database of existing information.** SWCA has gathered, cataloged, and organized in a user-friendly manner hundreds of data necessary to conduct a constraints analysis on the marine environment offshore California.

**4. SWCA holds on-call contracts with all of the major electric utilities in California.** Since 2008, we have worked directly with Southern California Edison Company, PG&E, and, more recently, San Diego Gas and Electric on their transmission and distribution systems. We have direct experience with nearly every facet of transmission planning in every part of California. We have surveyed and permitted projects across thousands of transmission lines, distribution lines, and substations across the state, including the Morro Bay and Diablo Canyon Power Plants.

**5. We know what it takes to develop an offshore wind project.** Ms. Fiore's direct experience working in the industry allows us to leverage our institutional knowledge of the development process from a developer's perspective. Plus, many SWCA team members have worked on construction and operations plans (COPs) and survey campaigns.

**6. We know and work with the Bureau of Ocean Energy Management (BOEM) in the offshore wind space.** SWCA recently completed the preparation of the South Fork Wind Farm Final Environmental Impact Statement (EIS) and is currently preparing the EIS for Revolution Wind. We have experience working on Environmental Assessments for several offshore wind lease areas, which provides us with in-depth knowledge of the multiple data portals that house the information needed to prepare the analyses requested in this request for proposal. Ms. Fiore has moderated two panels in the last year that included BOEM Pacific Region NEPA and environmental staff, one virtually and one at the Pacific Offshore Wind Summit in March 2022. In addition, our subconsultant, SEARCH, is currently working with BOEM to identify potential archaeological resources in the marine environment offshore California.

## EXPERIENCE WITH OFFSHORE WIND TRANSMISSION PLANNING AND POLICY

SWCA has been on the front lines of offshore wind and its associated transmission planning and policy since the market began forming. We have been helping industry and agencies in California and on the East Coast to understand the permitting road map and identify solutions for project pitfalls. As part of the ACP/OWC Permitting Workgroup, SWCA has participated in recent meetings with the CPUC, helping it develop offshore wind development timelines for the state's integrated resource planning process, including utility-scale offshore wind power in the state's integrated resource planning process and California Independent System Operator (CAISO) clean energy and transmission planning. The timelines include permitting, engineering and design, geological and geophysical (G&G) surveys, construction, and port upgrades.

As a firm, SWCA has worked on permitting for hundreds of new and upgraded transmission projects across the country, including the recent 125-mile-long Cardinal-Hickory Creek 325-kV transmission line, the 1,000-mile-long Gateway West transmission line, and the local Paso Robles Area Reinforcement Project located in San Luis Obispo County. We know the permitting and siting constraints for offshore wind, transmission, and renewable energy projects.

## CRITICAL ENERGY INFRASTRUCTURE INFORMATION DATA AND INTERCONNECTION INFORMATION AVAILABILITY

SWCA has reviewed the CAISO Generator Interconnection Queue for offshore and onshore renewable energy projects to determine queue positioning and project competition. We can provide a high-level understanding of the competitive landscape and general available capacity based on the queue positioning.

In addition, our GIS analysts are adept at sorting through infrastructure data (including critical energy infrastructure information data) to inform geospatial analysis and constraints. The GIS team regularly searches online databases (e.g., the Federal Energy Regulatory Commission, CAISO, and CPUC) to find the data needed for accurate figures and maps to ensure all existing infrastructure is accounted for.



## LOCAL EXPERTISE, BIG FIRM SUPPORT

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SWCA has offices and staff throughout the country who provide expertise for offshore wind energy projects. We draw local, regional, and national knowledge to develop the best strategies to facilitate success. We can help you navigate the development process — from site assessment and permitting to resource surveying and monitoring.

### WHO WE ARE

SWCA is a nationwide environmental consulting firm. Since 1981, we've helped our clients navigate the environmental compliance process. We are recognized leaders for bringing sound science and creative solutions to every project.

In addition to offshore wind and other renewable energy development and generation, SWCA serves the transmission, oil and gas, government, water, mining, transportation, coastal and terrestrial ecological restoration, and land development market sectors.

For more information, visit [SWCA.com](http://SWCA.com).

100% *Employee* OWNED

## CONTACT

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