

COST ENGINEERING SERVICES

The cost engineering team at OWC provides customized advice for informed offshore wind development through our range of cost advisory services including business case review and advisory, detailed project cost and schedule evaluation, early financial modeling, and project controls advisory.

Overview

OWC has hands-on experience estimating and reviewing costs of fixed-bottom and floating offshore wind projects in mature and developing markets worldwide. We have in-house cost models built following bottom-up approaches based on our deep understanding of technologies, development and construction activities, and market dynamics and procurement strategies.

These models are calibrated through our exposure to real-world scenarios from various markets. This bottom-up approach differentiates OWC, as we are able to provide country-specific insights which would otherwise be lost when looking at generic top-down approaches.

Our team of engineers and analysts evaluates costs related to all aspects of a project's lifecycle to clearly assist in assessing economic feasibility. OWC – as well as the broader ABL Group – serves as an owner's engineer, marine warranty surveyor, and consultant for Transport and Installation (T&I), Operations and Maintenance (O&M), decommissioning, port assessment, mooring analyses and due diligence. It is this broad experience which allows us to support projects holistically, identify and quantify risks on overall cost expenditures and screen opportunities for cost reductions.

We conduct cost estimations analysing expenses in all project phases; Development Expenditures (DEVEX), Capital Expenditures (CAPEX), Operations and Maintenance Expenditures (OPEX) and Decommissioning Expenditures (DECEX). Our cost models are integrated into the evaluation of the Levelised Cost of Energy (LCOE) considering different scenarios and sensitivities. These are fed by industry-leading Annual Electricity Production (AEP) estimations modelled by our Wind & Site Team.

It is more important than ever to understand the big picture of the offshore wind industry and the energy system, challenges and opportunities posed by global supply chains and new technologies, pressures from increased interest rates and volatility in commodity prices, risks encountered in new markets, new business models (like power-to-x), or new regulations. We, at OWC, cannot predict the future, but we can assist in defining a range of plausible futures so your strategy can be tuned accordingly.



Business Case Review & Advisory

Early assessment of project feasibility is crucial to enabling a successful project both in terms of costs and project timeline. OWC are experts evaluating project plans throughout development, construction, operations, and decommissioning. Our team can consider various scenarios of project development including the evaluation of methodologies for transportation, construction, and strategies in line with the developer's intended project commissioning date.

- Project feasibility assessment, site identification and site ranking
- Parametric Cost Estimations (AACE Class 2 to 5)
- Advisory in offshore wind auctions
- Schedule Analysis & Optimization
- Project Planning Analysis & Alternative Scenario Evaluation
- Risk Assessments
- Review of Term Sheets with Suppliers and Contractors
- Supply chain engagement & gathering of market intelligence for project planning
- Review of Financial Models as part of Technical Due Diligence (TDD) assignments, including independent cost estimations

Detailed Cost & Schedule Evaluation

Commercially successful project delivery is reliant on detailed and accurate projections of costs and project schedules. The evaluation of costs and scheduling should be done iteratively from the early stages of projects to assess feasibility, accurately identify and mitigate risks, and spot upsides and opportunities.

With established cost models to evaluate all aspects of a project's lifecycle, OWC provides detailed evaluations of costs. With a detailed database on component failure rates, our in-house Monte Carlo models can accurately forecast and evaluate project maintenance requirements and related cost impacts.

- Project DEVEX, CAPEX, OPEX & DECEX Definition
- Project DEVEX, CAPEX, OPEX & DECEX Assessment (AACE Class L2-3) & Review (AACE Class L1)
- Levelized Cost of Energy (LCOE) Assessment
- Baseline Schedule Definition
- Discounted Cashflow Analysis (DCF)
- Preliminary Investment Analysis (NPV, IRR, ROI)

Cost Control Advisory

Once project development is underway, it is vital that appropriate controls are in place to align the project timeline with any related commitments and to appropriately manage any risks and claims that may arise through the process and mitigate them effectively.

Our group's extensive experience in operations and claims, including the tracking and review of costs and schedules, enables us to track progress and identify risks and trends during project development to mitigate them.

- Project Claims Management
- Management of project cost books
- Performance Indices Monitoring (CPI, SPI, etc.)
- Project Cost & Trending Analysis
- Earned Value Management
- Analysis and validation of quotations from tenderers
- Coordination of estimates with internal and external team members
- Cost reconciliations to previous estimates
- Support on technology selection, commercial and procurement support

Case Study

US Offshore Wind Bid Preparation

Project Location: New Jersey, US

Scope: OWC developed cost-books and provided cost estimating services for the preparation of several bids for the New Jersey Solicitation 2 and 3

- Joined project services team, in close collaboration with package managers, planner and finance team
- Developed, improved and managed detailed costbooks
- Reviewed commercial terms and scope of work of key contracts and identified gaps between packages
- Reviewed historical proposal prices and supported negotiation of key contracts
- Performed Capex-based concept comparisons
- Reviewed payment terms and integrated into the cost-books
- Proposed inflation tracking mechanisms and integrated into the cost-books



Contact us

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