

Full Time Position: Naval Architect

Department: R&D

Reporting to: Vice President of Research and Development

Qualification: Degree in Naval Architecture or equivalent

Location: Corvallis, OR (remote location possible)

Columbia Power (CPower) is the worldwide leader in direct-drive wave energy systems. We are commercializing a next-generation solution that will deliver the qualities our customers need to develop profitable wave energy projects: survivability, a competitive cost of energy, low environmental impact and high stakeholder acceptance.

Our utility-scale StingRAY wave energy converter (WEC) is a hybrid design that benefits from the characteristics of both point absorber- and attenuator-type devices. The StingRAY has a fiber-reinforced-plastic (FRP) hull and float structure and employs permanent-magnet generators within its power take-off. The systems developed are scalable and deployable in a wide range of applications, from powering oceanographic sensors to generating megawatt-scale electricity.

CPower's Research and Development team is located in Corvallis, Oregon USA. Its corporate offices are located in Charlottesville, Virginia USA.

To support the design and development of the StingRAY technology, CPower requires the skills of an experienced Naval Architect on its technical team. While Corvallis, OR is the preferred location, remote office consideration is possible for well-qualified, appropriately-experienced applicants.

Job Description: The Naval Architect is responsible for cost-effective structural designs that must satisfy the unique seaworthiness requirements of CPower's StingRAY WEC buoy. The Naval Architect is expected to make material selections for components (aluminum, concrete, FRP, steel, etc.), considering requirements in a marine environment including: survivability, initial capital cost, levelized cost of energy (LCOE), and corrosion resistance, as well as installation, operation and maintenance (IO&M) costs. Balancing the lowest LCOE, while ensuring system survivability, is a critical aspect of the position. This professional will prepare design documentation, design justifications, data, drawings, system descriptions and contribute to periodic reporting requirements as assigned.

Compensation: Commensurate with qualifications and experience. Employee stock ownership plan is available.

Required Education: Bachelor's degree in Naval Architecture from an accredited institution or Bachelor's degree in Marine or Mechanical Engineering with 5 years of relevant experience. An advanced degree is preferred.

Job Location: Columbia Power's engineering office is located in Corvallis, OR. Remote operation/tele-commuting will be considered for well-qualified candidates.

Travel: Regional and international travel is expected

Duties & Responsibilities

- Provide expert guidance regarding marine design requirements (structural loading, corrosion, fouling) to design team (electrical & mechanical engineers)
- Effective communication with and coordination of subcontractors and/or consultants employed in the transition to detailed design
- Design of metallic and composite structures
- Design guidance and approval of metallic and composite structures
- Buoyancy and stability analysis, prioritized for maximum energy capture when deployed, while safe during transit
- Assist in creating processes for onshore and offshore transportation, integration of systems, testing, commissioning and IO&M of CPower's StingRAY WEC.

Qualifications, Skills and Experience

- Successful experience in the design of offshore structures or vessels, especially with emphasis on commercial business considerations (cost effectiveness, safety/liability)
- Direct practical marine experience/knowledge; especially with safety, operations and logistics
- Competent in necessary use of appropriate computer design tools; experience with Solid Works, ANSYS Mechanical and ANSYS AQWA is preferred
- Demonstrated success and an affinity for functioning in a collaborative team environment
- Experience managing marine sub-contractors and consultants
- Competent with MS-Office

Additional Experience desired

- Experience in FRP design, fabrication, installation and construction management is highly desirable
- Shipyard experience
- Specification of electrical integration with emphasis on grounding and electro-chemistry/corrosion
- Renewable energy
- US, EU and / or UK government contracts

To be considered for this position, please submit detailed resume with a cover letter indicating how you can contribute to the ongoing success and technical development of Columbia Power to careers@columbiapwr.com