

## Chief Engineer - Powerhub

- Industries: Maritime construction, Power Systems, Renewable Energy, Microgrids
- Remote working: Full-time contract for 7 months, thereafter 20 hours per month.
- 12 month contract - Salary plus equity during the 7-month contract, services for equity consultancy arrangement thereafter.
- Start and onboard immediately
- Can further evolve to a long-term paid role upon closing our next capital raise

Want to assist an exciting, innovative, smart infrastructure venture that is passionate and determined to accelerate the new world of clean energy, transportation and maritime to net zero & to meet ESG targets?

As a group, ELIRE has accelerated very quickly over the last months to position our ventures and world-first solutions critical to accelerating the ecosystem shift to adopt new technologies. ELIRE Infra has a long pipeline of exciting projects from London, UK, UAE, Australia, the Nordics and the Mediterranean.

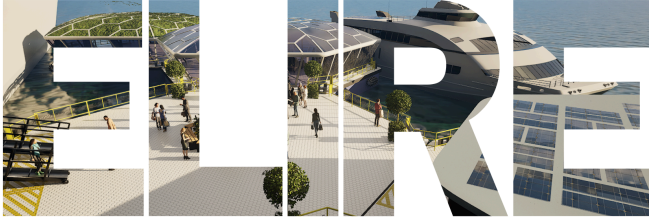
### Company Description

ELIRE Group pioneers innovative solutions at the intersection of infrastructure, transport, and clean energy to help clients achieve decarbonisation and net-zero goals. The company values commercially viable, scalable, and impactful innovation, blending existing technologies with new ideas to drive change.

### Role Description

Elire is leading a consortium of partners for the rapid development of a hydrogen fuelled floating microgrid system for the provision of shore power to vessels, e-vessel charging, and waterfront adjacent electrical charging. Our senior engineering and tech team is looking for an experienced Marine Systems Engineer to join the team to work alongside the project management team to lead the technical elements of the project through a combination of partner and subcontractor management alongside personnel work to deliver seamless technical integration of the onboard systems, and delivery of the operations and maintenance plan.

This role will be responsible for monitoring technically all partners, ensuring that decisions are made promptly as required by the project plan, meeting the overall project safety, performance, and cost targets. Electrical Engineering capability is already available within Elire Infra, and this role focuses on the System Engineering aspects of the integrated platform as well as the mechanical aspects of the design.



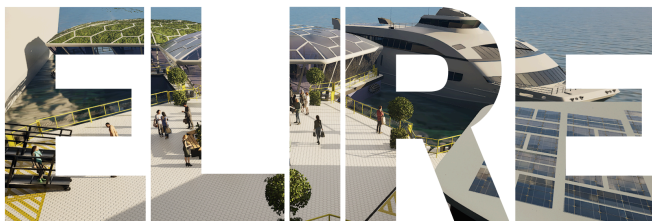
## **Key Responsibilities**

### **Subsystem Design & Integration**

- Lead the Powerhub project and partner technical teams.
- Leverage ELIRE electrical engineering and naval architecture resources to maximise learning from consortium partners.
- Create the Powerhub platform layout, integrating partner and supplier subsystems based on partner equipment inputs, safety requirements, operational considerations, and human factors.
- Develop and manage the general arrangement drawings and P&IDs, working closely with the naval architects to ensure that weight and CoG needs are met.
- Design, specify, and integrate key marine subsystems, including hydrogen systems, cooling systems, HVAC, fire protection, and fluid distribution systems. Work with Elire procurement to identify and engage with potential suppliers beyond the consortium.
- Ensure that all designs are scalable, modular, and aligned with best practices for marine engineering.
- Address thermal management, vibration isolation, and fluid dynamic considerations to optimise performance and longevity.

### **Systems Engineering & Interface Management**

- Implement systems engineering best practices to manage the entire lifecycle of the Powerhub, from concept development to operational validation.
- Lead interface management between electrical, mechanical, automation, and structural teams, ensuring seamless subsystem integration.
- Develop detailed interface control documents (ICDs) to define technical boundaries, functional specifications, and compatibility between connected systems.
- Identify and mitigate potential integration risks, ensuring that all subsystems work together efficiently within the marine environment.
- Apply risk-based design methodologies, such as Failure Modes, Effects, and Criticality Analysis (FMECA), Hazard and Operability Studies (HAZOP), and Fault Tree Analysis (FTA), to enhance safety, reliability, and performance.
- Ensure all systems comply with marine classification rules and standards (e.g., DNV, ABS, Lloyd's Register, IMO).
- Conduct failure mode impact assessments to predict and mitigate potential mechanical, hydraulic, and electrical failures.
- Implement redundancy strategies for critical subsystems, enhancing overall platform resilience.



## Integration Management & Testing

- Develop and deliver the integration test strategy for the Powerhub, incorporating supplier and partner FAT, and subsystem FAT. Define the SAT strategy to lead the development and execution of system validation plans, ensuring that all subsystems function as expected under real-world conditions.
- Develop a progressive testing framework, refining designs before deployment using model-based systems engineering (MBSE) and digital twin simulations.

## Marine Engineering and Environmental

- Address marine-specific engineering challenges, including corrosion resistance, hydrodynamic forces, wave-induced stress, mechanical fatigue, and long-term durability.
- Ensure system designs are optimised for harsh marine environments, considering seawater ingress, pressure fluctuations, and extreme weather resilience.
- Conduct structural and mechanical interface assessments to ensure seamless integration of marine systems with floating platforms.
- Develop and implement preventative maintenance strategies to extend the service life of floating marine infrastructure.

## Ideal Candidate Profile:

- Experience: Minimum 15 years in marine systems engineering, subsystem design, or floating infrastructure development.
- A senior Principal Engineer seeking to leverage their wide experience in a start-up environment as a Chief Engineer.
- Technical Skills: Expertise in marine system integration, including fuel, gas, cooling, HVAC, and fire protection.
- Systems Engineering & Integration: Strong understanding of interface management, modular subsystem integration, and validation testing.
- Software Expertise: Proficiency in AutoCAD, AVEVA Marine, CADMATIC, or similar tools for GA drawings, P&IDs, and system modelling.
- Regulatory Knowledge: Deep understanding of marine classification standards (DNV, ABS, Lloyd's Register, IMO regulations, ISO 13628-6, etc.).
- Risk & Reliability: Experience with FMECA, HAZOP, FTA, and other risk analysis methodologies.
- Marine Environment Expertise: Understanding of how the marine environment affects mechanical design, including corrosion resistance, wave loads, and thermal dynamics.

Contact and apply with your resume, portfolio, LinkedIn profile and a short description of your interest and experience via email using the subject - *Ch Eng PH* + '*your name*' to Rajeev Verma, Group CTO, [rajeev@eliregroup.com](mailto:rajeev@eliregroup.com)