

Mechatronic Engineer

- Work with a view of the ocean in North Fremantle
- Permanent full-time contract in a friendly, dynamic team environment
- Progressive ASX-listed renewable energy developer
- Company undertaking projects in Australia and Europe
- Internationally recognised industry leader

Carnegie Clean Energy Limited is an ASX-listed renewable energy technology company with a clear purpose – to harness ocean energy to make the world more sustainable. Carnegie is the owner of the CETO and MoorPower technologies, which captures energy from ocean waves and converts it into electricity. We use the latest advances in artificial intelligence and electric machines to generate electricity in the most efficient way possible. Our technical team are world class engineers and scientists with a passion for technology, renewable energy and sustainability. Carnegie is working to demonstrate a new rotary electrical power take-off system which converts the linear motion of the buoy into rotary motion, suitable for an electrical generator, during upcoming CETO and MoorPower deployments.

Carnegie is seeking a Mechatronics Engineer to join the technical team and work closely with other engineers across a broad range of disciplines in executing the technology development plan. Reporting to Carnegie's Chief Technology Officer, this position will be responsible for providing technical expertise and knowhow to the simulation, sizing, specification, procurement, assembly, commissioning and operation of rotating drivetrains applied to the CETO and MoorPower power take-offs. In-depth knowledge of relevant electro-mechanical engineering principles in the design of rotating drivetrains will be required, alongside a thorough understanding of the associated electrical and control systems, mechanical design, integration and programming of such machines into an overall power generation system.

The Position:

- Deliver mechatronic engineering expertise for the design and specification of rotating electrical machines, associated electro-mechanical and control systems
- Develop computer models and undertake simulations to evaluate the behaviour and performance of the drivetrain stand-alone, and integrated with overall system models
- Contribute to the overall CETO and MoorPower designs through integration of rotating electrical machine solution, including management of electrical integration design
- Provide costing knowledge in preparation of budget estimates for CETO devices focused on power take-off, drivetrain details and components related to electrical and control Manage relationships with rotating electrical machine suppliers and electrical and control component suppliers to deliver optimal technical and commercial outcomes from procurement activities
- Deliver mechatronic engineering expertise in the design of wider power generation electrical and mechanical systems, including electrical & mechanical energy storage, power electronics, grid connection, and heavy-duty mechanical componentry.

The Candidate will possess the following:

- A positive and collaborative approach to problem solving in a team environment
- Bachelor of engineering or higher in Mechatronic Engineering - Masters level focussing on electro-mechanical engineering preferred. B.Eng plus relevant industrial experience will be considered
- 5+ years' experience in Mechatronic Engineering in power generation, heavy industry or propulsion applications

The following would be well regarded:

- Experience in electric vehicle drivetrain design
- Experience in marine applications such as marine propulsion or marine energy, especially electric propulsion
- Experience in wind energy drivetrain applications, especially direct drive
- Experience with large scale rotating electrical machines in other industries will be considered where candidate can demonstrate applicability, including heavy-duty drives for industrial process
- Experience with electrical or mechanical energy storage technologies
- Background in wider electrical generation system design (i.e. grid connection systems)
- Background in heavy-duty mechanical engineering for rotating equipment

The Company offers:

- The chance to work in a rewarding company and be part of developing and demonstrating a world class and world first renewable energy technology
- A competitive remuneration package will be offered in line with relevant experience and skills

Applications, including covering letter, CV and answers to the application questions below, should be forwarded to careers@carnegiece.com in PDF format with "Mechatronic Engineer" in the subject title. Only shortlisted applicants will be contacted. Confidentiality is assured.

Application Questions

Are you eligible to work in Australia?

How many years experience do you have in a similar role?

What is your expected salary?

Do you have a relevant degree or tertiary qualification?

Describe your ideal work environment in 3 words.