

## Job Title

Electrical and Control Turbine Engineer

## Role Description

### Location

QED Naval Limited, based at 11 Castle Street, Edinburgh, EH2 3AH.

### Lead the tidal energy revolution

Do you want to push the boundaries of your profession and develop innovative sustainable solutions to challenging technical problems? You would be joining our Offshore Structures Team. This exciting team of experts support the entire offshore tidal business within QED Naval. We work to build a renewable energy future and as a team to set the standard amongst our peers. We invite you to bring your experience into play as you help to deliver on projects throughout a tidal turbine foundation's life cycle.

### Your future day to day work scope

- Support the Tocado T2-SI development our next generation turbine technology based largely on the T2 turbine currently in use at OTP.
- Development of the in-house Tidal and Wave Energy Evaluation Tools (TWEET) to include the turbine electrical models of the power conversion and transmission.
- Development of the turbine test plan to measure the performance of the turbine onshore at ORECs Blyth facility.
- Development of the next generation power electronics specifically designed for our turbines and implementation of the control strategies on this hardware.
- Monitoring and learning from historical and current data from our OTP project and turbines and all previous projects.
- Have experience of techno-economic modelling of tidal projects and calculating the Levelised Cost of Energy (LCOE).
- Identification of fields of development and demonstration of savings potential.

### Other duties may include

- Presenting results of research projects in abstracts and papers and at conferences.
- Provide general and specialist turbine knowledge to review and assess the financial performance of our existing tidal projects and highlight sensitivities to market fluctuations and where cost reduction potential exists.
- This new, dynamic tidal industry needs to learn fast in order to bring down costs with improvements in efficiency so the candidate will ensure that all lessons learned from our current projects are incorporated into future projects and support the technical development of the platforms and tidal turbines assessment.
- Manage QED's involvement in ground breaking joint industry and research projects.
- Work closely with internal stakeholders and external design houses and fabricators to produce cost effective and value-added solutions.

## Required Skills

- Educated to degree level in a Electrical and Control engineering.
- Strong in the use of technical engineering software such as MatLab, Labview.

- Good skills in software coding such as Python, C++.
- Strong experience economic modelling and good with numbers.
- Good communicator and excellent team player.
- Fluent in spoken and written English.

## Desirable skills

- Applicable post graduate degree.
- Design of electrical systems and power electronics.
- Good computing skills.
- Member of a professional body
- Demonstrable experience of working effectively independently or within a small team

## QED Naval Background

Apply now.

We value diversity and therefore welcome all applications, irrespective of gender, disability, nationality, ethnic and social background, religion and beliefs, age or sexual orientation and identity.

Of course, you can find us on LinkedIn, Facebook, and Twitter.

QED Naval is a Naval Architecture consultancy business that specialises in marine energy platform developments and utilises its high-end numerical modelling capabilities in order to rapidly develop concepts into good design and represents change, innovation and sustainability. QED Naval is leading next generation, leading edge platform and tidal turbine technology, we are helping other businesses and national grids around the world become more carbon friendly to enable a sustainable life for people around the world. To achieve this, we are looking for dynamic and passionate people who truly believe in this cause to join us in creating a sustainable and secure energy future.

QED Naval Limited, is based in Edinburgh, UK, it is the group lead of several subsidiary companies which have been setup to develop specific technology and projects. QED's jewel in the crown is Tocardo BV and Tocardo (UK) tidal turbines, acquired as part of a joint venture with HydroWing. With operational bases in the Netherlands (Wieringerwerf) and soon to be on England's south coast close to QED's first project at the Yarmouth Tidal Test Centre (YTTC). This test centre has been setup to develop QED's next generation tidal platforms and turbines.

The Oosertschelder Tidal Project (OTP) is Tocardo's flagship project at 1.2MW, it operates 5 of its T2 turbines in the storm barrier and was formally the largest tidal array in the world. This icon project has many learnings to research and take forward into our project pipeline which encompasses around 80MW but is growing all the time. These technologies allow us to advance the capacity of tidal energy worldwide and be an important part of the renewable energy mix. Another key part of this transition is to utilise "run of river" flows using some of the most iconic rivers in the world and in some of the most vulnerable and deprived areas of the world.