

## Women in STEM: how one county is making SPARCS

On International Women's Day 2024, Pembrokeshire County Council joined Pembrokeshire College in the launch of the Sustainable Power, Renewables, and Construction (SPARC) Alliance. This new alliance promotes gender diversity in these underrepresented industries, key to reaching net zero.

There is a huge variety of job opportunities in the growing field of sustainable power, renewables and construction, but as teachers, we often don't know about them and therefore can't signal such jobs as ones our pupils might be interested in or aspire to. Role models have been identified as a great way of engaging pupils and SPARC hopes to highlight the work of Pembrokeshire women in STEM, showcasing the varied roles on offer, as well as the various routes people have taken to get there. STEM careers do not have to start with STEM, and they don't necessarily require a university degree.

I met up with two of the women working in the industry who are part of the SPARC Alliance to find out more about their work and how they would like to see primary teachers encourage children into the sector.

[INSERT IMAGE OF CLARE]

Clare Lawrence is a Project Manager at the Port of Milford Haven where she helps to operate the UK's leading energy port safely, responsibly and effectively.

How long have you worked for this business / in this role? **I started in the business as an apprentice 12 years ago, I became a project manager 2 years ago.**

What's the journey you have taken to get to your current role (from picking which A-levels or equivalent)? **Joining as an apprentice at the Port I gained on the job experience whilst studying, completing a degree in Construction Management & Sustainable Technology.**

What does your job entail?

**As a Project Manager I help the Port deliver infrastructure and construction projects. My days are varied and include interaction and planning with a variety of designers, engineers, clients and contractors whilst ensuring we continue to operate a safe and sustainable business. I spend my time between the office and on site with our teams to ensure delivery is on budget and on time. I also assist with any issues that may occur throughout the programme.**

What are the best bits about your job? **The sense of achievement when you see a previously disused area completely transform into a functioning asset for our community and stakeholders. As a social person, the opportunity to work with a wide variety of professionals, suppliers, stake holders and within your own community is hugely rewarding.**

What are the biggest challenges? **Our location. Working on the most south westerly point of Wales we are certainly exposed to the elements and we can be quite some distance from suppliers.**

Has there been anything surprising about your job? **The huge opportunities available on my doorstep and the experiences that I have had. For example I was involved in the successful delivery of a 4\* hotel build as well as a £40million investment in Port infrastructure for the**

renewable industries within the space of 4 years. This was a great achievement for the Port and Pembrokeshire!

What do you hope the SPARC project will accomplish? I hope it highlights the wide variety of opportunities available to everyone at every level right here in Wales. Sustainability, engineering and construction are industries gaining momentum and SPARC will hopefully show young people of Pembrokeshire just that this is a really exciting time and we can make a difference for ourselves and future generations through this industry.

If you were at primary school now how would you want your teacher to support you to enable your career in the renewable energy sector?

- We need people who can problem solve and work as a team so developing those skills early on would be great. Social interaction and working together to achieve is vital in my role and something that needs to be encouraged from an early age.
- Take the opportunity to approach industry and ask for support with site visits, classroom engagement and providing resources for tasks.

What would you like to say to your 10 year old self about what you currently do and the journey you have been on? Don't follow the crowd, find your passion and qualities and a job role that fits in with them. Being chatty is also a good thing!

[INSERT IMAGE OF NAOMI]

Naomi Bowen is an Assistant Construction Project Manager at RWE Renewables UK, a company focussed on renewable energy development, construction, operation and generation.

**What's the journey you have taken to get to your current role (from picking which A-levels or equivalent)?** After my GCSE's and A-Levels I Got my first full time job at 19, on a LNG terminal construction site, working as an agency admin/finance assistant. I worked my way up to a staff job at the LNG terminal in Finance & Continuous Improvement for 13 years. During that time I gained two NVQ level 4s in Accounting and Tax and then spent 12 months on a secondment in maintenance working on projects. I then decided I wanted to pursue a career in project management so spent 2 years working in Floating Offshore Wind development projects, and ended up in Onshore Wind construction projects. I'm currently on a Project Manager training programme to become a Construction Project Manager.

**What does your job entail?** I assist the Construction Project Managers in overseeing the construction of onshore wind farms. As part of my role I also have to provide construction support to the Development Team. My day consists of civil and electrical contract management (including turbine supply agreements), developing and managing the invitation to tender process for large contracts. Budget management, attending regular meetings at the construction site with all contractors. Attend team meetings through Europe, visiting development and construction sites throughout the UK. Managing the ground investigation works to inform the construction decision making. Taking part in Community Liaison meetings, Stakeholder

Management, including dealing with complaints. Assisting with the offsite road modification contracts (delivery enabling works, to allow for ALL delivery of WTG components to site. Project administration tasks, recruitment for contract positions. I also assist with management of the DNO (distribution network operator) and Grid connection management.

**What are the best bits about your job?** I get to travel across the UK and Europe visiting sites and meeting new people.

**What are the biggest challenges?** Getting large components to site is a huge challenge, as most of our wind farms are in rural hill/mountain locations and the road networks require upgrading.

**Has there been anything surprising about your job?** I've been amazed at how complex building a wind farm is, especially the construction of a turbine foundation, the engineering is fascinating!

**What do you hope the SPARC project will accomplish?** I hope that the SPARC project will inform and inspire young people into taking on a career in Renewable Energy. Giving young people knowledge and insight into the technology out there and the vast array of career paths available within the renewable energy sector is key to helping them reach their potential. This will also go some way to sustain the local and UK economy by attracting young people of Pembrokeshire to stay and work in their local area.

**If you were at primary school now, what would you want your teacher to support you with to enable your career in the renewable energy sector?**

- It would be great if teachers could focus more on engineering disciplines as well as science. Associating different subjects/skills with career paths, so that pupils understand the link between what they are learning and how they can apply that knowledge in whichever career they chose would be great.
- The UK has a large energy industry and the transition that is happening to renewable energy is massive. I think more career engagement at primary school age, with talks from renewable industry workers to demonstrate the career paths and roles available would help pupils think further and dream bigger.
- Avoiding gender stereotyping of roles is critical.

**What would you like to say to your 10 year old self about what you currently do and the journey you have been on?** I would like to tell myself that technical careers in engineering / operations / maintenance are not just for boys and you can do it too. However I would also say that a degree in engineering/science is not necessary to have a career in the renewables industry or project management. This is often a misconception and discourages young people to entertain a career in energy.

#### **About SPARC:**

SPARC Alliance members include Blue Gem Wind, Floventis, Ledwood Engineering, Port of Milford Haven, RWE Renewables ERM, Morgan Sindall Construction and Pembrokeshire Coastal Forum, local secondary schools and Pembrokeshire College.

Investment from the Alliance, with additional funding from the Swansea Bay City Deal, will support school teachers in delivery, engagement and awareness raising activities from July 2024.