



- LOCATION Montrose, Scotland
- TECHNOLOGY Green Hydrogen

Locogen is working with the The Arbikie Highland Estate Distillery on an innovative hydrogen project, which could see them become the world's first carbon neutral distillery.

The Arbikie project will comprise a single 1MW wind turbine on Arbikie's farmland, which will export the electricity generated to a green hydrogen hub via a dedicated private wire. The green hydrogen hub will be based at Arbikie Distillery and comprise an electrolyser, compressor and storage.

Green hydrogen will be created by the electrolyser and a direct pipe will take the stored hydrogen from the storage vessel to the existing plant room. A burner and boiler compatible with burning hydrogen will then be used to create steam which will deliver the heat for distillation.

This will replace gas oil that is currently used to raise steam at the distillery.

Burning hydrogen does not release any carbon emissions and therefore the Arbikie project represents a clean fuel alternative to current practices. The project will showcase the technical feasibility of using hydrogen as an alternative fuel in distillation and other process heat applications and will have enormous replicability across industry whilst acting as a catalyst for creating green hydrogen opportunities in the wider Angus area.

The project was supported by £3 million in funding from the Department for Business, Energy & Industrial Strategy's (BEIS) Net Zero Innovation Portfolio, through its Green Distilleries Competition.



John Stirling, Director at Arbikie Distillery, said:

"We are delighted to see this project moving forward. We aim to be one of the world's most sustainable distilleries so being able to use green hydrogen power will be another significant step in our sustainability journey."

WHY LOCOGEN?

Locogen is an internationally recognised and award-winning expert in facilitating the development, construction and operation of renewable energy systems for our partners and clients. Our vision is to see the world powered by 100% distributed renewable and low carbon energy; where everyone has access to affordable, sustainable energy and clean air. We work to realise that vision by providing investment-grade technical and commercial expertise and advisory services to support the development, design, build and operation of renewable energy and low carbon projects in the UK and internationally.

SERVICE AREAS

We operate across all project stages, from site finding, feasibility and options appraisal, all the way through to construction, asset management and decommissioning. These services are delivered via our development, operational services, consultancy and energy services divisions.

DEVELOPMENT

Locogen has been developing renewable energy projects since 2009. We have successfully developed utility and commercial-scale wind and solar farms, along with community hydro projects. We often develop projects in partnership with other organisations, such as private equity investors, landowners, international developers and community groups. We are actively seeking new projects to invest in and we bring considerable experience and expertise to ensure success. We also offer a zero-risk option for landowners, where we lease the site and take full responsibility for every aspect of the development. If you're simply looking for finance, we can help identify the best-fit deal or look at investing in your project ourselves.



OPERATIONAL SERVICES

Our operational services team delivers asset management, operation and maintenance services across a range of renewable technologies. Asset management is key to ensuring the proper operation of your renewable energy asset, maximising revenue streams and boosting return on investment. Securing the right asset performs to your expectations over the course of its lifetime. Locogen has comprehensive asset management packages for wind, solar and hydro projects. Services include performance analysis, maintenance co-ordination, operational administration, regulatory compliance and financial services. We tailor these packages to meet precise needs of individual clients. Our asset management team has an excellent record in minimising downtime, responding quickly to technical issues to maximise generation - and revenues. Our Power Purchase Agreement (PPA) service is free to all asset management clients and secures the best deals available.

ENERGY SERVICES

Our energy services team complements our renewable energy consultancy and development divisions, offering contracting services over a wide range of technologies, including wind, solar, renewable heat and hydro projects. Our team includes experienced consultants, designers, field engineers, electricians and project managers. The renewable energy services team can also act as principal or main contractor, taking full control and responsibility for construction of your renewable energy project. The team has worked extensively across sectors such as new-build and social housing, public sector, commercial and community groups. Our experience and expertise ensure these projects are delivered safely, on schedule and to budget.

CONSULTANCY

Our consultancy team provides professional services at every stage in the life of a renewable energy project. At the very earliest stage, we conduct feasibility studies to advise on the viability of the project and perform formal due diligence services to ensure lenders or investors are appraised of all project risks. Our design team will take the project through from survey to complete project design and our consenting services will make sure all proper consents are obtained to allow the project to proceed. We offer expertise in mature technologies, such as wind, solar and renewable heat, and also advise on emerging sectors such as hydrogen, net-zero strategies, energy storage and local energy markets.