

BEIS Green Distilleries Competition — Project Hyladdie

Location: Islay, UK

Date: 2020-21

ITPenergised, in a consortium with Protium Green Solutions and Deuterium, has received more than £70,000 in funding to complete a feasibility study on incorporating innovative hydrogen combustion technology into an existing distillery. Part of the BEIS Net Zero Innovation Portfolio (NZIP) and funded by the Small Business Research Initiative Green Distilleries Competition, the project is the next step in assessing the application of alternative fuels at Bruichladdich.

Due to the remote location of many distilleries across Scotland, hydrogen implementation is a critical step forward in enabling producers to work towards net zero and in ensuring their operations can benefit from on-site power sources that are otherwise hindered by grid limitations.

The project will explore the deployment of an on-site Dynamic Combustion Chamber (DCC™) as a viable mechanism to meet Bruichladdich's heating requirements.

“We are thrilled to have the support of ITPenergised, Protium and Deuterium to help us assess the feasibility of employing a hydrogen fuel switching solution for our distillery – a move we hope benefits the broader industry.”

Allan Logan, Operations and Production Director,
Bruichladdich

Our Role:

ITPenergised, together with Protium and Deuterium, is investigating optimal system design integration of the DCC™ into the existing Victorian distillery. As with any project undertaken at Bruichladdich, the feasibility study will consider the preservation of centuries old equipment, the safeguarding of spirit quality and the impact on the local community.

This project marks the inaugural deployment of DCC™ in the UK. This revolutionary technology generates high temperature steam, using only oxygen and hydrogen that is combusted in a vacuum. The process creates water, which can be recycled and crucially, eliminates emissions of greenhouse gases (CO₂) and oxides of nitrogen and sulphur (NO_x and SO_x).

Outcome:

The study is currently in phase one of the Green Distilleries competition. Positive results will see the team target phase two of funding in order to install the DCC™ and assess its industrial application. This proof of concept could be the vote of confidence required for similar-sized distilleries and other food and beverage manufacturers to join Bruichladdich's ambitions of net zero. Certainly, it will demonstrate feasibility for those retrofitting operations to become more sustainable as opposed to being 'born-green'.



info@itpennergised.com



[+44 131 557 8325](tel:+441315578325)



www.itpennergised.com

