



Machrihanish Airbase Community Company
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Community Led Local Development Fund – MACC Hydrogen Futures Viability Study Stage 2

Scope for Machrihanish Airbase Community Company (MACC) MACC Hydrogen Futures Viability Study Stage 2.

MACC has been successful in securing CLLD funding for the services detailed below. MACC is carrying out a short turnaround tender exercise in order to proceed with the project as quickly as possible. **Responses to this tender document are required by 16:00 on the 20th of January 2023.** The budget for this work package has a limit of £75,000 + VAT.

MACC is looking for a contractor to conduct detailed development work on the creation of a green hydrogen supply chain in the Argyll & Bute area utilising the land, facilities, and infrastructure at MACC. **The project deadline is February 28th, 2023.**

Background

The aim of this work is to develop and ultimately construct a green hydrogen production facility that will create local jobs in the green economy, support businesses, significantly contribute to targets on renewable energy generation and net-zero, and address fuel poverty.

Successfully rolling this project at scale could deliver the following benefits:

- Decarbonise domestic heat in Campbeltown by replacing 20% of current gas supply with green hydrogen, with a potential a full 100% conversion of the network in future years.
- Decarbonise whisky production in Campbeltown and Argyll & Bute, facilitating conversion of local distilleries from oil to green hydrogen.
- Decarbonise local HGVs and other large vehicles, conversion from diesel to green hydrogen.
- Attract aviation sector H2 and LH2 engine development industry to the MACC site.
- Facilitate development of more renewable energy in the Kintyre Peninsula contributing towards net zero and local green jobs.

Expected outcomes

Provide a significant contribution to demonstrating the feasibility of this innovative project. As

per the scope outlined above, it will give MACC key learnings on the commercial and technical feasibility of securing H2 customers and enable us to engage with suppliers, consenting bodies, delivery partners, funders, and lenders to further develop work completed to date.

Scope:

1. H2 Local Market Development – 20%

Scope:

- I. Building on the market assessment and feasibility works completed previously the successful bidder will:
 - a. Directly engage with possible early-stage adopters of hydrogen fuelled technology including Scotia Gas Networks, Distilleries, HGV and PSV operators.
 - b. Will seek to establish partnerships, MoU or Supply Agreements for Hydrogen with these operators.
 - c. Will seek potential partnership arrangements for project implementation of hydrogen fuelled appliances and vehicles including contacting OEM's to ascertain availability and lead time of equipment

2. Liquid Hydrogen (LH2) Market Development – 20%

- II. Building on the LH2 Market Analysis and feasibility works completed previously the successful bidder will:
 - a. Detail feasibility of the requirements of the hydrogen liquefaction infrastructure
 - b. Detail feasibility of the support services required to facilitate LH2 user testing on the site.
 - c. Developing commercial arrangements with potential LH2 consumers
 - d. Further refinement of the business case for potential LH2 consumers.

3. Project Development 40%

- III. Building on the recommendations from the stage 1 works for Green H2 generation and supply the successful bidder will:
 - a. Engage with Planning Authority and District/Transmission Network Operator to establish feasibility of stage 1 green generation options.
 - b. Engage with suppliers to refine costings and update financial model.
 - c. Engage with third parties regarding potential off-site renewables development identified in stage 1.
 - d. Prepare photo montage of solar and/or wind energy development options with highest potential of planning success.
 - e. Revisit prior work on the feasibility of supplying H2/LH2 to the SGN gas network via repurposing existing, laying new pipeline or road tanker.

4. Project Management – 20%

- IV. MACC staff are heavily committed to other projects at present and the board of directors are volunteers, so PM support is required to oversee this project on our

behalf.

- a. Managing all contractors, outputs, quality assurance and dissemination to MACC Project Board
- b. Reporting to grant funder and ensuring compliance with all funding conditions
- c. Project management and co-ordination
- d. Reporting and project close process
- e. Review funding landscape, Engage with future funders and lenders.
- f. Engage with potential delivery partners and developers with and on behalf of MACC.

Tender responses should detail payment requirements, terms & conditions and any caveats/assumptions made in the response.

Contact:

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