

CONSULTANCY

Aberdeen City Council, Low Carbon
Options for Hydrogen Refuelling Station



- LOCATION **Aberdeen, Scotland**
- SYSTEM SIZE **Range of technologies and scales**

Aberdeen City Council is focused on ensuring the demand of their growing fleet of fuel cell vehicles is provided from renewable hydrogen. Loco2gen was commissioned to complete feasibility works to identify on-site and off-site development options to achieve this.

Aberdeen City Council is actively developing hydrogen transport infrastructure within the city, with a fleet of fuel cell buses, a bus refuelling station at Kittybrewster and a hydrogen refuelling station for smaller commercial fuel cell vehicles at Cove in the south of the city.

All of the required hydrogen is currently produced at the two refuelling stations, with all of the associated electricity demand currently being met by the local grid. The Council commissioned Loco2gen to consider the feasibility of using renewable energy generating technologies to feed electricity directly to the site to reduce the cost and associated carbon emissions of this hydrogen production. Going forward there is also the expectation for a significant increase in the amounts of hydrogen required, with further hydrogen bus roll-out and the development of fuel cell waste collection lorries.

Loco2gen considered 7 different options including the development of small scale embedded technologies and larger scale off-site options connecting to site using private wire arrangements. On-site solar options were identified that would offset a small proportion of the overall site demand but the larger off-site opportunities were heavily impacted by the cost of the private wire, applicable business rates and/or planning risk. As an additional scope of work, Loco2gen then considered the potential to purchase renewable hydrogen from third parties as a means of achieving price and carbon reduction targets and this was concluded as being an attractive option.

Going forward, the development of a renewable hydrogen supply chain will be key to maximising the benefits of future integration of fuel cell vehicles. Loco2gen is actively involved in a number of projects that will ensure the availability of cost-effective hydrogen produced from low carbon technologies.



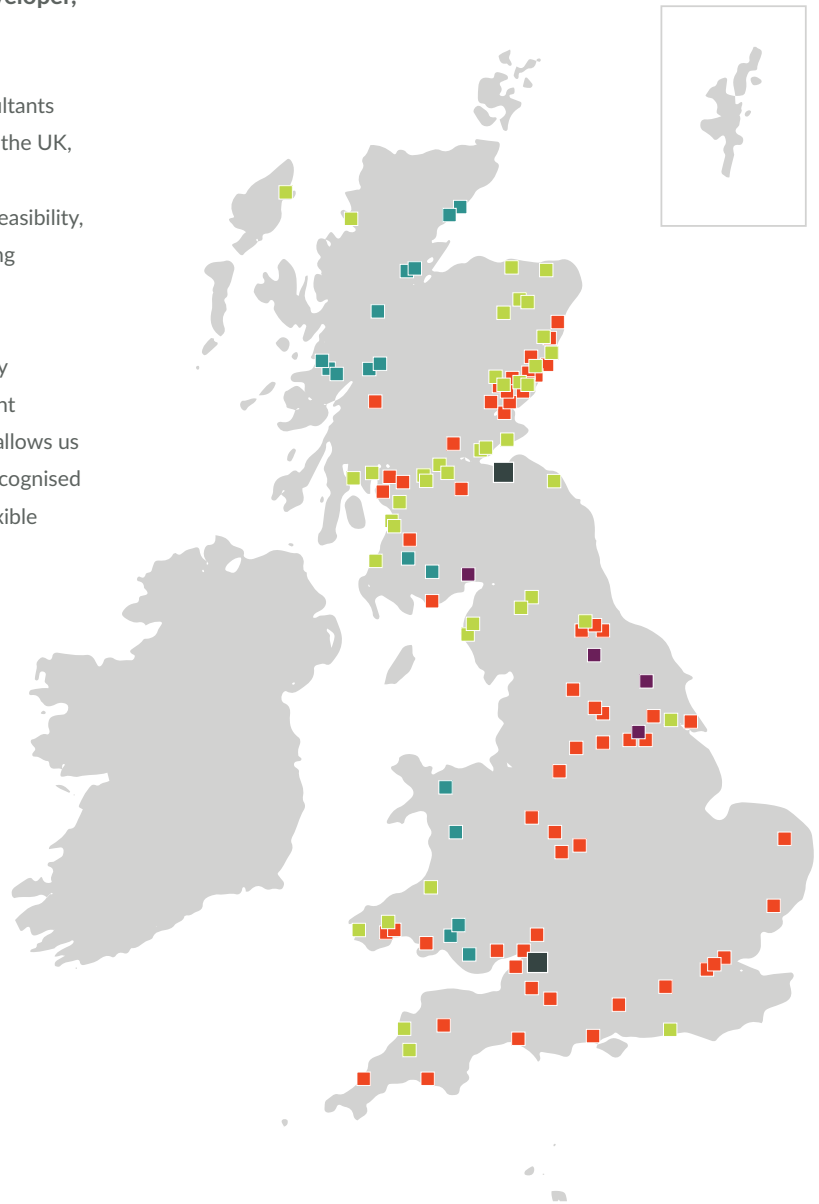
WHY LOCOGEN?

The Locogen Group, an award-winning pioneer in the sector, has been established since 2009 as a consultancy, developer, installer and operator of renewable energy assets.

Our team of engineers, project managers and technical consultants has delivered hundreds of renewable energy projects around the UK, covering wind, solar, hydroelectric and anaerobic digestion technologies. We take projects from initial concept through feasibility, design, consenting, due diligence, construction, commissioning and operation.

We have developed and operate wind, solar and hydro energy portfolios of our own. We also have a large Asset Management client-base which benefits from our experience; this volume allows us to spread costs and keep our services competitive. We are recognised as a proactive, honest and professional company, and our flexible services are renowned within the sector.

We have a national presence, with a UK-wide network of engineers and technicians giving us a quick response time, ensuring project down-time is low and system performance is maximised.



Our Projects

- WIND
- SOLAR
- HYDRO
- ANAEROBIC DIGESTION

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