



CASE STUDY

NORTHERN INNOVATION HUB (NIH) FOOD AND DRINK TECHHUB PHASE 2 NET ZERO MOBILISATION PROGRAMME

**CLIENT: HIGHLANDS &
ISLANDS ENTERPRISE**

LOCATION: SCOTLAND

HIGHLIGHTS

- Sustainability Consultancy
- Emissions Reduction
- GHG Trajectory Model

CONTEXT

Arthian was contracted by HIE, following a tendering process, to design and deliver a Net Zero Mobilisation Programme for food and drink businesses operating within the Highland Council area. The programme formed part of the Northern Innovation Hub, supported through the Inverness and Highland City-Region Deal.

Working closely with HIE, Arthian provided tailored one-to-one support to participating food and drink businesses. Seven businesses took part in the programme and received in-depth support designed around their individual needs and stage of development in relation to net zero and carbon accounting.



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Support provided through the programme included:

- A structured assessment process to understand each business's level of maturity in relation to Net Zero and carbon accounting. This enabled support to be tailored appropriately to help each business progress its journey.
- Delivery of one-to-one meetings and workshops, resulting in each participating business receiving a carbon footprint baseline assessment and a Carbon Reduction Plan (CRP) aligned with Procurement Policy Note 006, including:
 - emissions reduction targets aligned with the Scottish Government's Net Zero by 2045 target
 - an action plan identifying carbon reduction opportunities
 - a GHG trajectory model based on agreed Net Zero targets
 - and at least one intensity ratio.
- Delivery of three training webinars, including: Introduction to Net Zero (ISEP Certified); Carbon Footprinting & Reporting; and Pathways to Net Zero.
- Additional tailored support, including Scope 3 gap analysis, GHG data management plans, supplier questionnaires, carbon calculators and carbon/net zero training support where appropriate.

THE CHALLENGE

Despite working with the client on promotional information for programme for businesses and HIE staff, demand for the programme was lower than expected. Delivered during a period of ongoing economic and operational pressures, it was generally felt that balancing a range of competing priorities, including day-to-day operational demands and wider cost pressures, impacted capacity to engage.

Seasonal factors also affected participating businesses and data collection at points during the programme, particularly across summer and early autumn periods when many businesses experienced peak operational activity, annual leave periods and reduced staff availability.

THE SOLUTION

In response, Arthian evolved a programme delivery approach that placed greater emphasis on intensive, tailored support for participating businesses. We adjusted activity to work more closely with each business, providing a deeper level of engagement and a broader package of practical support. This helped businesses accelerate progress towards Net Zero ambitions.



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This flexible approach - agreed with HIE as the client - ensured participating businesses received enhanced value from the programme. Support was adapted to reflect business needs, operational realities and opportunities identified throughout delivery.

To maintain momentum and support engagement, Arthian also introduced a proactive communications and planning approach, including regular check-ins, scheduled meetings and clear upfront guidance on data requirements. This helped participating businesses engage effectively and ensured delivery milestones were achieved within agreed timescales.

Overall, the programme achieved the following outcomes:

- All seven participating businesses received Carbon Reduction Plans (CRPs).
- Five participating businesses received additional tailored support to further progress their Net Zero journey.
- Savings of 104,116 kWh/year in electricity consumption; £29,385/year in energy costs; and an annual emissions savings of 4.1 tCO₂e.
- Participating businesses are now better positioned to access future investment and implementation funding, with several businesses indicating they intend to use their CRPs to support applications for HIE funding.

BUSINESS IMPACT

For one of the participating businesses, a bakery, Arthian analysed the possibility of installing a photovoltaic system on the rooftop to offset emissions associated with electricity consumption on site for business purposes. The bakery had received a quote from a solar PV installation supplier. The modelled output and quote provided an estimated annual output which exceeded the current total energy consumption on site, representing 192% of the current site's electricity usage. This vastly exceeds the required amount of energy the Solar PV array needs to produce to meet the bakery's annual energy demand.

Using its technical expertise, Arthian adjusted the model and provided advice to the business on the most suitable solar PV system for the needs of the bakery. We estimated that the annual generation of the proposed system would be 54,003 kWh, representing 37% of the current site's electricity usage. The energy export of this proposed system was estimated to be 10%, resulting in an annual self-supply of 48,603 kWh (inclusive of the potential battery storage). This will provide the bakery with a suitable amount of on-site renewable energy with the potential to store excess energy and export some back to the national grid.



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Energy cost savings were estimated at ~£13,000 per year and the annual emission savings at ~2 tCO₂e per year (lifetime emission savings of ~43 tCO₂e per year).

The bakery has since advised that it intends to use Arthian's analysis to support a future capital funding application.

“The Northern Innovation Hub (NIH) Net Zero Mobilisation Programme has provided highly practical and tailored support to food and drink businesses across the Highland Council area. Delivered by Arthian on behalf of HIE, the programme combined high-quality one-to-one engagement with clear carbon reduction planning, resulting in measurable energy, cost and emissions savings for the participating businesses.



“The programme has also helped build confidence and momentum, with businesses now better positioned to secure funding and implement their net zero ambitions. I am delighted with the support provided through this programme and grateful to the team at Arthian for their hard work in delivering positive outcomes for the businesses involved.”

Keith Masson, Head of Net Zero Transition, Highlands & Islands Enterprise



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