



CASE STUDY

LOCAL HEALTH BOARD DECARBONISATION PROGRAMME

**CLIENT: SWANSEA BAY
UNIVERSITY LOCAL
HEALTH BOARD**

LOCATION: UK

Highlights:

- Estate-wide decarbonisation
- Major capital delivery
- Renewables & efficiency

THE CHALLENGE

Arthian was appointed by a Local Health Board to provide comprehensive support for their estate wide Decarbonisation Programme. This long-term commission commenced in 2019 and included a wide range of services such as:

- Development of a Carbon Reduction Strategy
- Identification of Energy Efficiency and carbon reduction measures
- Renewable Technology Review
- Project Design
- Project Development
- Project Management
- Project implementation
- Project hand over and governance

Arthian also supported with funding applications:

- Grant Application and Proposal Development
- Net Zero Carbon (NZC) Reporting
- Strategic Decarbonisation Action Planning to meet key milestones



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THE SOLUTION

Arthian's involvement encompassed multiple interconnected workstreams:

- **Project Management for Re:fit and Wales Funding Programme Schemes**, including:
 - Supporting the development of tender documentation, managing bidder assessment, and selecting preferred contractors through the Re:fit Energy Performance Contracting Framework.
 - Negotiating, agreeing, and managing NEC3/4 Works Contracts for project delivery (c. £20M net value).
 - Overseeing detailed design processes, conducting technical due diligence alongside the clients in-house experts, NHS Wales specialist resources, and site-based operational staff.
- **Governance & Reporting**
 - Reporting to the Project Governance Board to ensure delivery against programme and budget.
 - Preparing regular progress reports for both the Health Board and Welsh Government.
- **Post-Completion Support**
 - Establishing operation and maintenance contracts for key systems.
 - Implementing IPMVP-compliant Measurement & Verification Plans to track energy savings and performance.
- **Financial and Technical Support**
 - Acting as the client's agent for capital M&E projects, providing financial governance and technical advisory services.



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PROJECT OUTCOMES

Arthian successfully managed and technically supported a multi-million, multi-phase decarbonisation programme for the client, which included:

- **Project Phase 1: Delivery of a c£7M Re:fit Project (RIBA Stages 1–7)**
 - Modernisation and optimisation of Building Management Systems (BMS).
 - Installation of EC fans, pipework insulation, steam system upgrades.
 - Replacement of over 14,000 light fittings.
- **Project Phase 2:**
 - Design, installation, and commissioning of a c£6M 4MW Solar Farm with a 3km, 11kV private wire connection to a major acute hospital.
- **Project Phase 3:**
 - Installation of two Air Source Heat Pump (ASHP) schemes.
 - Additional energy efficiency improvements and renewable generation measures across various sites.
- **Project Phase 4:**
 - Expansion of the solar farm to 5MW and introduction of 2MWh battery storage capacity.
- **Additional Strategic Decarbonisation Support**
 - Preparation of Net Zero Carbon Baselines and annual reporting in line with Welsh Government NZC Reporting Guidance.
 - Development of a comprehensive Decarbonisation Action Plan addressing Scope 1, 2, and 3 emissions across all Health Board departments.
 - Completion of energy audits at all Health Board-owned Primary Care and Community Treatment Centres.
- **Refurbishment of Critical Infrastructure**
 - Management and delivery of a major Fire Alarm System replacement programme at a key acute hospital site.



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