

Gemserv developed new research and a report for the Climate Change Transformation team within the Isle of Man Government, to inform their work on heat decarbonisation.

## THE CHALLENGE

In 2019, the Isle of Man (IoM) Government declared a climate emergency and made a commitment to reach net zero carbon emissions by 2050. This target is aligned with other leading pledges set by European Governments, such as the UK and France.

Residential buildings are responsible for 20% of the island's greenhouse gas emissions, with business' adding at least a further 7% to this figure. In large part, this is driven by fossil fuels use within homes which provide the input for space and water heating systems.

The island cannot meet its climate change targets without developing a plan and implementing a strategy to decarbonise heat over the next 30 years.

The Isle of Man Government tendered for a partner organisation to advise policymakers on a renewable heat strategy. They wanted a comprehensive review which assessed the suitability of different low-carbon technology solutions for the Isle of Man building stock, a recommended technology transition roadmap, and a set of achievable milestone targets and next steps.





## THE SOLUTION

Gemserv was selected to develop a review during 2021. We deployed an experienced team including a core group of consultants and analysts focused on delivering against established project milestones, providing continuity for the client and allowing a productive working relationship to be developed. The team was supported by a wider advisory group which included a distinctive mix of:

- Heat network experts currently working with the UK Government to deliver the Heat Networks Investment Programme (HNIP) and Heat Network Efficiency Scheme (HNES).
- Hydrogen experts working with UK industry to advocate for supportive policy as part of our work with the leading trade association, Hydrogen UK.
- Heat pump and electrical heating specialists both with a background working for major European manufacturers and providing the Heat Pump Association's secretariat.
- Biofuel consultants experienced in delivering the UK's Biomass Suppliers List and supporting biofuel companies with their market entry and policy advocacy.
- Consultants and policy advisors with considerable low carbon heat public policy experience.
- Experienced analysts proficient in developing techno-economic analysis and policy impact assessments.

The team faced the following challenges, and developed solutions to deliver a high-quality report:

1. Unfamiliarity with the Isle of Man context. This included information such as the availability of energy sources, building stock condition and future power-grid investment intentions.

## THE IMPACT

The review was well-received by the client, who commented on the detail and comprehensiveness of the report – particularly the residential heat analysis which used Isle of Man data. The delivery team were invited to present the results to senior decision makers within the key energy companies on the island, a wider group of policymakers in several Government departments, and Ministers. The report will be used to inform important policy decisions, notably the future of the gas grid and scope for hydrogen heating, and will inform further detailed investigations into promising technologies and specific applications.

The team shared a Request for Information datasheet with the client to ensure that we received relevant information. This data was supplemented by evidence available online and reviewed by the team. Our researchers also spoke to key stakeholders and energy providers with first-hand knowledge of the energy system on the island in individual interviews and workshops. The Talan UK team used our stakeholder management experience to engage sensitively with a range of organisations, with differing perspectives on the opportunities and challenges involved with the transition.

2. Incomplete data available. Low carbon heat technologies had yet to be installed on the island in sufficient quantities to establish key performance and cost metrics. Additionally, building stock performance data was incomplete. The Talan UK team used technology information and heating system performance data from adjacent markets such as Ireland and the UK – adjusted for the Isle of Man context.

3. Uncertainty regarding forecasts of key assumptions and technology cost-reductions. The team developed three net zero compliant scenarios, based on the National Grid's Future Energy Scenario framework (which was also used in other Isle of Man renewable strategies), to provide policymakers with a series of different roadmap options, and to test for the impact of variations in key assumptions.

4. Developing policy recommendations which were pragmatic and realistic for the Isle of Man Government. The Gemserv team worked closely with the Isle of Man policy team to present interim findings in an interactive workshop setting, with initial recommendations discussed, and subsequently refined to ensure that the policy suggestions were practical, whilst aligning with the results of the review.

Furthermore, the Isle of Man Government approached us to develop a follow-on piece of research, considering the forthcoming requirement for additional renewable heat and insulation installers needed to deliver the heat transition, and the evolving skills gap on the island.

This review concluded in Q1 2022 with strategic recommendations for the Isle of Man Government. Our team was delighted to be approached to deliver the follow-on project and supplement the renewable heat strategy report.