ade Awards

Showcasing Innovation Report 2026

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Delivering your electricity

Recognising Exceptional and Transformative Ideas in the Sector

A note from ADE

The coming years will be critical in transforming our energy system and maximising the opportunities presented by an increasingly renewable future. Across our sectors, exceptional innovation in products and services is already helping to reshape GB's energy landscape, breaking down barriers to decarbonisation and enabling a smarter, more flexible and sustainable energy system. **These innovations deserve to be recognised and celebrated.**

For the second year running, ADE is proud to present its 'Showcasing Innovation' report, shining a spotlight on the products and services driving progress across the energy sector. From innovations accelerating the decarbonisation of heat through heat networks to solutions empowering households and businesses to decarbonise and participate in the energy system on their own terms, the report celebrates the ideas and technologies turning ambition into action.

ADE Awards Dinner attendees and the public will have the opportunity to vote for their favourite innovation featured in the report ahead of the Award Ceremony on the 24th November. **Voting will remain open until 19:00 on Tuesday 24th**. The winning entry will receive the **Showcasing Innovation People's Choice Award** (sponsored by UK Power Networks).

After review of all submissions please **Vote Here,** or using the **QR Code** throughout.

Criteria
In August 2026 we invited ADE members to submit proposals which include:

- Proof of concept, products and services that can or are delivering innovative results in the supply of heat through heat networks (district, communal and shared-ground loops and/or geothermal) or relevant supply chains, as part of our mission to reach Clean Heat 2040
- Innovative approaches, services and business solutions that deliver demand-side response, outstanding consumer experience, value-for-money and ensure compliance with regulation and/or voluntary schemes such as Heat Trust or Flex Assure.

Submissions must be able to provide measurable results even at Proof of Concept and only be new to the market within the last five years. Moreover, applicants were asked to complete a submission form with company details, a summary of the product/service, technical details, impact and a timeline from design, implementation to commercialisation.

Selection
All applications submitted were reviewed by ADE's Business Development Department, consulted for further details where appropriate and all applicants were notified of the reasons why they had been chosen (i.e clearly demonstrating the product or service stands out as innovative against existing counterfactuals).

List of featured companies, products and services

Company	Project
Chirpy Heat	NetMax
Fife Council and Ramboll	Use of thermal storage, electricity market optimisation and local flexibility services to unlock heat networks in Fife
Guru Systems	Hub 3 Core PAYG
Oxane Energy and Anglia Water	Project TORCH
Lothian Heat and Ramboll	Unlocking community-owned, heat networks for existing homes using probabilistic heat network modelling
Rehau	Advanced Design Service
Secture Meters	NextGen Smart Integrated Heat Metering & Solution
Smarter Solutions Ltd	Smart:Portal
Switch 2	Optimise

Disclaimer

ADE is not endorsing, selling or guaranteeing the performance of any of the products listed on this document. The Showcasing Innovation Report should not be used as a commercial tool to advocate for any specific company or product. Its intended purpose is to provide case studies and examples of innovation and encourages anyone wishing to solicit services or purchase products from the listed companies in the document to do so.

NetMax

Chirpy Heat

Innovation Stage: Deployment

Netmax is the digital platform for housing providers navigating heat network compliance. Netmax provides the management and strategic framework to turn complexity into a clear, step-by-step journey to regulatory compliance, showing the current stage, the risks ahead and next steps. By unlocking clarity, confidence and control, Netmax takes out the stress and is the way to reach compliance with regulations.

Innovation Detail

Netmax was born from a simple but urgent problem: housing providers were being asked to navigate a fast-changing heat network compliance landscape without a clear route to achieve this. The challenge is not a lack of commitment, but the complexity of knowing what steps need to be taken to ensure the end goal of compliance is reached.

This is where Netmax comes in. It is a fully fledged portal that breaks down the challenge and provides a clear process to keep heat network operators on the road to compliance. It asks various questions to set the scene and identify the current compliance position. Afterwards, a full mapping of all compliance areas and the current position is identified. This leads to a breakdown of tailored requirements to meet each stage of compliance which are tracked for progress. All the while, Netmax provides a live mapping of the current compliance position which is accessible 24/7. It serves housing providers, local authorities, registered providers and other heat network owners/operators and is broken down into four areas:

1. UNDERSTAND
Get clarity. Know where you stand.

2. RESPOND
Identify and prioritise urgent issues.

3. PLAN
Builds a clear roadmap towards compliance.

4. DELIVER
Let's make it happen. Turn the plan into ongoing action.



The greatest challenge was translating technical, regulatory and operational requirements into something practical for busy asset, compliance and energy teams to use with confidence. Netmax does this through a digital dashboard that brings together data, compliance milestones, risk status, next steps and progress tracking.

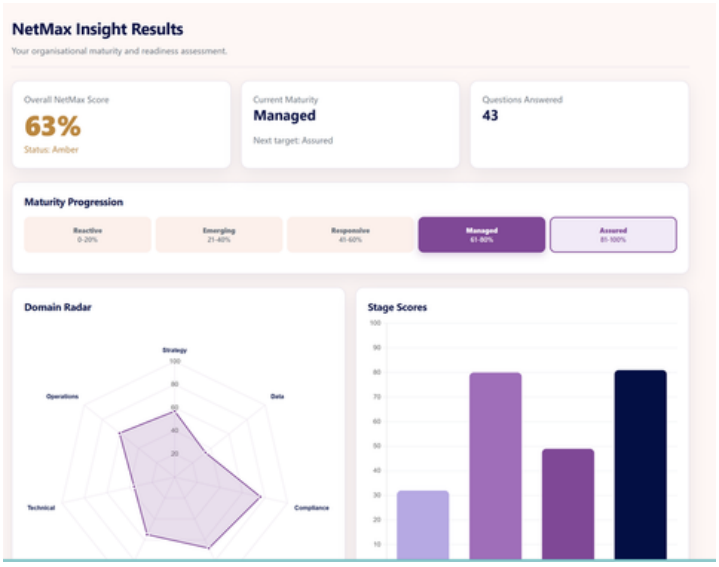
The product is currently in product development and deployment, shaped by real client needs and designed for practical use rather than theory. Unlike generic compliance trackers or consultancy reports, Netmax is built specifically around the heat network compliance journey. It does not simply store information; it guides action.

Impact

Netmax's impact begins with clarity. By helping housing providers understand exactly where each heat network sits on the compliance journey, it turns regulation into action. That action supports better-performing networks: identifying gaps, prioritising improvements and enabling progress towards heat network regulations and HNTAS.

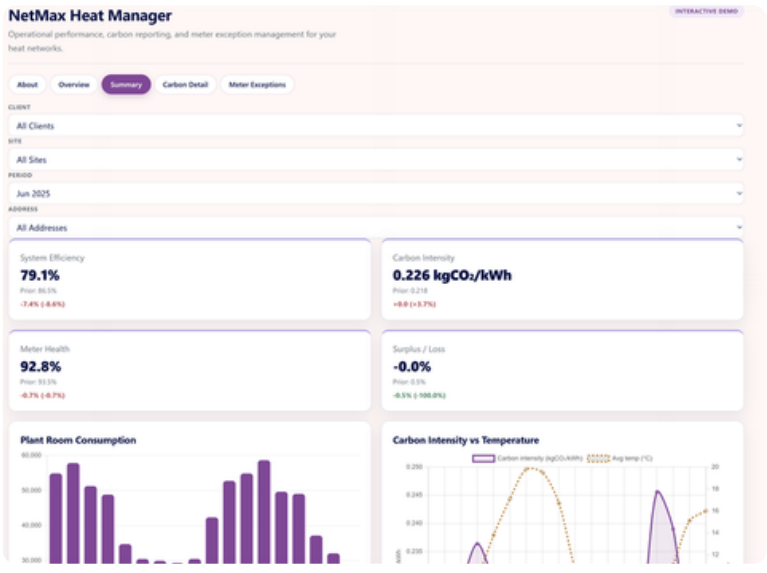
For residents, this means heat networks can become more efficient, reducing wasted energy, avoidable carbon emissions and unnecessary operating costs. For providers, it creates a route to more secure, better-managed energy systems, where demand can be understood, risks can be reduced and investment can be targeted where it matters most.

Most importantly, Netmax contributes to a fair energy transition by supporting the social housing sector to move forward fairly and confidently. It helps ensure compliance, efficiency and decarbonisation are not reserved for those with the loudest resources, but are made practical, visible and achievable for the communities that need them most.



Timeline

Netmax has been created in house by Chirpy Heat's wonderful IT colleagues. Netmax is a tool which Chirpy Heat has used over the last two years, and has evolved from simple beginnings on a spreadsheet to a soon to be fully fleshed out portal which can be used across both the housing and heat networks sectors.



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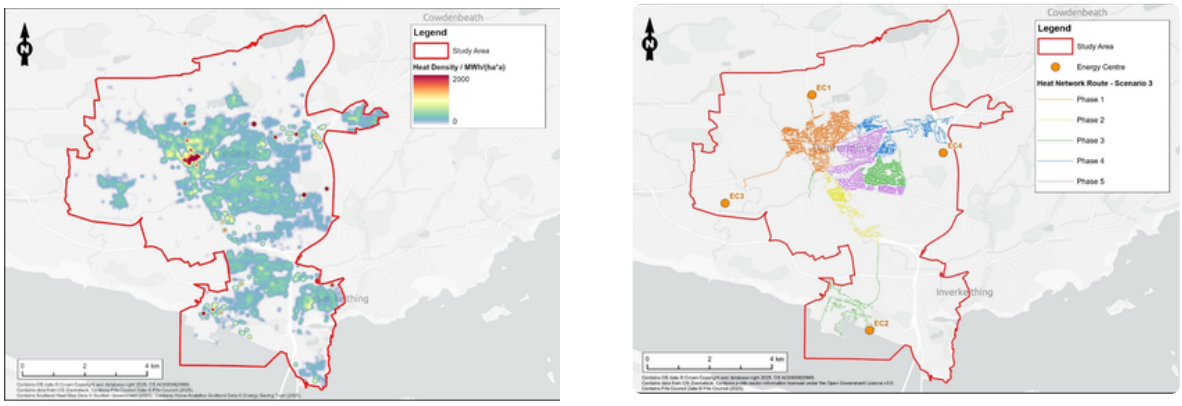
https://chirpyheat.com/

Use of thermal storage, electricity market optimisation and local flexibility services to unlock heat networks in Fife

Fife Council & Ramboll

Innovation Stage: Proof of Concept

Fife Council's innovative study considered large-scale thermal storage to unlock viable heat networks in Dunfermline/Rosyth by overcoming grid constraints, reducing consumer costs and accelerating the transition to net zero. Ramboll's innovative modelling framework combined heat network design, thermal storage, electricity market optimisation and local flexibility services. This will help de-risk investment to inform future delivery and strategic energy planning.



Heat demand clusters for the Dunfermline and Rosyth area and its phasing

Innovation Detail

Fife Council, with Ramboll, explored the role of large-scale thermal storage in Dunfermline/Rosyth. This is to improve the viability of heat networks by increasing system flexibility, making better use of locally generated and constrained electricity infrastructure, and unlocking additional value from energy markets. This helps deliver Fife Council's Local Heat and Energy Efficiency Strategy priorities including accelerating heat decarbonisation while reducing costs for consumers, community wealth building, tackling fuel poverty, and supporting a just transition to net zero.

Phase 1 identified large-scale heat network opportunities in Dunfermline/ Rosyth. Phase 2 tested how heat networks could act as flexible electricity consumers, shifting demand into low-price periods and earning revenues in local markets - while still delivering a robust core business case grounded in heat demand and decarbonisation objectives.

Key challenges included uncertain future market values, complex distribution-use-of-system charges, and the need for detailed grid data under RIIO regulation. To address these, Fife Council and Ramboll engaged with SP Energy Networks and heat network developers to refine heat generation hierarchies. The work then created a combination of energy models using EnergyPRO and an open architecture Excel model which layers wholesale spot-price optimisation with local flexibility signals.

The study serves councils, energy planners, heat network developers and network operators by delivering techno-economic insights on phasing, infrastructure sizing, revenue stacking and tariff design. It utilises proven large-scale thermal energy stores (5,000 m^3), electric boilers, heat pumps, bespoke energy-market time-series and scenario analysis tools.

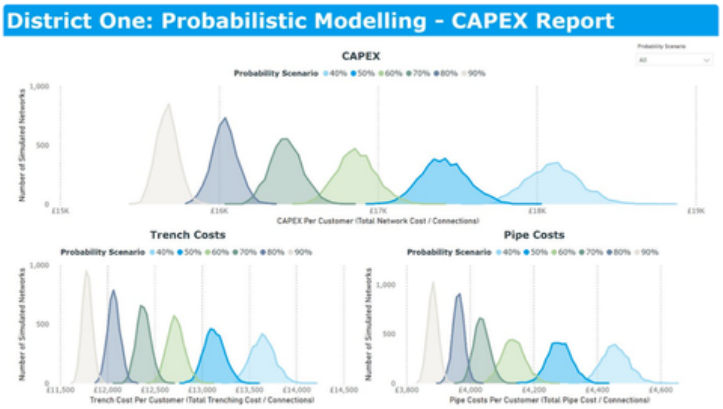
The study tested two flexible operation scenarios and quantified impacts on levelised cost, IRR and carbon intensity. Unlike traditional feasibility studies, the solution integrates multiple value streams such as day-ahead markets, local flexibility and avoided network reinforcement in a single framework. It operationalises local DSO data with district heating modelling, making it a pioneering tool for unlocking system value and de-risking heat network investment.

Impact

The biggest proven impact of the work is on system cost, flexibility and energy security, while its carbon impact depends on the plant mix. In Phase 1, Ramboll found that a city-scale heat network is the lowest-cost decarbonisation route for a significant share of Dunfermline and Rosyth. A city-scale heat network can reduce the peak electricity requirement for the local grid by tenfold compared to individual ASHP counterfactual.

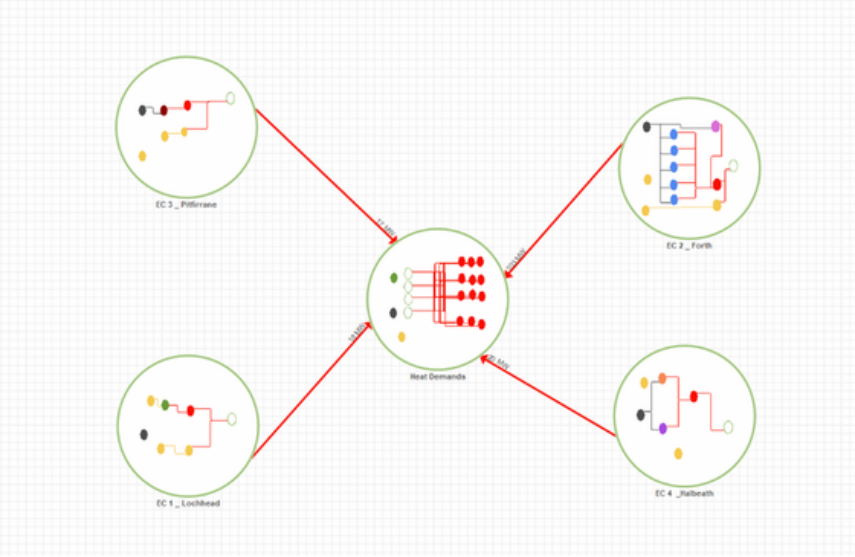
In Phase 2, adding thermal storage and flexible operation showed that the levelised cost of heat reduced by 8%, 40-year IRR increased by 1%, and additional local flexibility revenues of around £80k/year with only 0.2% of electricity consumption shifted.

Fife Council is already using this to guide its future planning. The approach has been/is being shared with partners such as other Scottish councils and the Scottish Government. Others are encouraged to build on this work and share again to move the transition forward at pace.



Timeline

Fife Council developed this project off the back of decades of work developing the case for heat networks within the region. The project was part funded by Scottish Government and Shared Prosperity Funding and ran over 18 months. This was during a phase of decision making within the Council about how different approaches to commercial delivery for future heat network projects could unlock greater scale and social benefits. Moving forward this work will support the creation of a new heat network delivery vehicle and inform other feasibility studies for Fife's other settlements.



EnergyPRO model for Dunfermline & Rosyth heat network including multiple energy centres and flexible electricity markets

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Hub 3 Core PAYG

Guru Systems

Innovation Stage: Deployment & Commercialisation

Built around the Guru Hub 3 Core, the new system provides residents with a simple mobile app through which they can view and manage their heat account and other utilities. At the same time, it gives developers, landlords, housing providers and heat network operators a powerful platform for metering, billing and payment management. Guru Systems' app-based Pay As You Go with Hub 3 Core is a sector-first innovation that combines resident-friendly prepayment, open interoperability with multiple billing providers, strong data security and real-time heat network visibility in one platform.

Innovation Detail

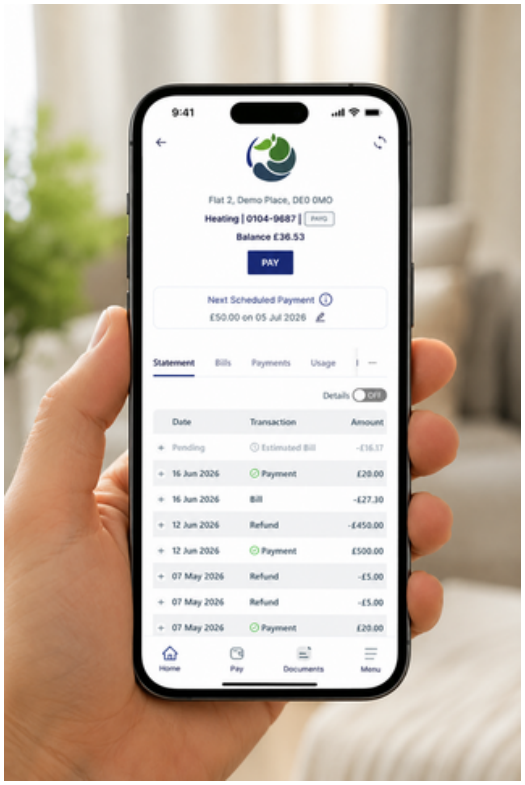
Heat networks are entering a new phase of growth, regulation and scrutiny. To scale successfully, the sector needs systems that are not only technically robust but also open, secure, flexible and simple for residents to use. Too often, metering, billing and payment systems have been fragmented, closed or dependent on single-provider models. This can limit client choice, create data silos, make it harder to switch suppliers, and leave operators exposed to arrears, poor visibility and operational inefficiency. Guru Systems' app-based Pay As You Go (PAYG) was developed to solve this problem. Based on Guru's cost-effective Hub 3 Core hardware, it brings together intelligent metering, app-based resident access, prepayment functionality, multi-utility capability and integration with multiple billing providers.

The result is an open, interoperable platform designed specifically for heat networks and the needs of developers, landlords, operators and residents. The game-changer is offering cost-effective, app-based PAYG through an open, interoperable platform that gives heat network operators choice rather than locking them into a single billing model. Rather than tying a client to one metering and billing provider, the system allows operators to choose between providers and switch easily, or even to bring metering and billing in house.

The system is already integrated with Armadillo and Data Energy, with further integrations in progress. This supports a healthier, more flexible market and reflects Guru's core principle that clients should not be locked into a single service model. For residents, the innovation provides a simple app-based way to view and manage their heat account and other utilities. For operators, it provides a secure platform for metering, billing and payment management. Hub 3 Core can manage and monitor up to four utility accounts and two external control devices, enabling clearer billing, reduced data silos and better consistency between what is measured and what is billed. Security is also central to the innovation. Hub 3 Core uses strong wireless encryption so that personal data is transmitted in a secure, private and protected way. This is increasingly important as heat networks become regulated infrastructure and operators handle more detailed personal data.

Impact

The impact is already being demonstrated in practice. Criterion Hospitality and Criterion Capital acquire older and underused properties and reposition them as hotels, residential apartments and mixed-use developments, many of which operate on heat networks. Their challenge was billing heat network tenants effectively. Historic billing in arrears had led to around £60,000 of tenant debt each year, and Criterion wanted to bring metering and billing in-house to regain control. The physical characteristics of Criterion's buildings created an additional challenge. Because of the size of the properties and building materials, SIM-based communications for PAYG were not viable. An encrypted wireless system was the immediate preference, but it had to be interoperable with metering and billing software that Criterion could easily use to bring operation in house.





Timeline

Commercially launched in May 2026.

Guru Developed the Technology on top of the existing Hub 3 core Hardware solution. Guru partnered with 2 Metering and billing companies, Armadillo and Data Energy to trial and test the solution before going to market.

The development took approximately 12 months to design, connect to the API and begin operation.

Guru is currently working with 3 more providers to allow them to utilise the cost-effective Hub 3 core solution in retrofit programs helping clients prepare for upcoming regulations. Guru continue to onboard new M&B partners for operation of the solution.

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Unlocking community-owned, heat networks for existing homes using probabilistic heat network modelling

Lothian Heat and Ramboll UK

Innovation Stage: Deployment

Ramboll's probabilistic modelling approach tackles the biggest barrier and 'unknown' behind residential heat networks - how many residents will actually connect. Our proprietary District One software, models thousands of pipe routing and sizing configurations to produce a distribution of costs based on property types and tenures. This replaces typically conservative cost estimates with defensible, risk-based investment cases that unlock domestic decarbonisation.

Innovation Detail

Achieving Net Zero means almost all homes in the UK must shift away from gas, with heat networks central to that transition. However, without powers to mandate connection, developers must commit to project costs before the level of consumer uptake is known. As a result, the assumed cost of connection (i.e., cost per household) is conservatively estimated to account for the risk of low uptake. This pushes schemes towards large anchor-load led or non-domestic networks and away from the core challenge: decarbonising housing stock and providing low-cost affordable heat to those who need it most.

Lothian Heat CIC is challenging this model through an ambitious vision for a community-owned heat network serving homes across the Lothians. Rather than relying on a single heat source, the scheme combines waste heat recovery, renewable energy, large-scale thermal storage and power-to-heat technology that can utilise otherwise curtailed wind generation. The result is a flexible, integrated energy system designed to deliver affordable, low-carbon heat while retaining value within local communities. An independent study has found that the concept can outperform individual heat pumps on cost, even without subsidy, demonstrating the potential for community ownership to become a new pathway for large-scale heat decarbonisation.

To help realise this vision, Ramboll is applying its proprietary **District One Probabilistic Modelling** software (developed in partnership with Vattenfall Heat UK) to test and optimise the residential heat network proposition in Musselburgh and Craigmillar, Scotland.

The platform iteratively models pipe routing and sizing across thousands of potential network configurations, using statistical methods to identify the number of simulations required to achieve robust results. By analysing how pipe lengths, diameters, and connection costs vary across different property types, densities, and tenure mixes, the approach provides a more realistic understanding of network viability and customer connection risk.



Impact

Lothian Heat aims to build the UK's largest community heat network, and Ramboll's probabilistic modelling is helping make that vision a reality. Through the quantification of residential connection risk at Musselburgh and Craigmillar, Ramboll are providing Lothian Heat a defensible, 'most-probable cost' to build their investment case. The approach will help to open the door for the benefits of heat networks to reach residents, providing affordable and stable heat to ease fuel poverty and cost of living pressures.

If carried through to delivery, Lothian Heat's approach will deliver one of the UK's most innovative heat networks and ensure homes are decarbonised at pace using local waste heat and curtailed energy, rather than individual heat pump solutions and their associated potential grid constraints.

Timeline

Lothian Heat CIC was established in late 2024 to develop a community-owned heat network across Edinburgh and the Lothians, building on earlier regional heat network and LHEES work and supported by feasibility studies undertaken with Danish heat network specialists Viegand Maagøe. Ramboll's District One probabilistic modelling approach was developed and demonstrated in 2025 through a residential proof-of-concept in Danderhall with Vattenfall Heat UK. The approach is designed to be scalable and repeatable across residential networks. We plan to extend our approach into network design and the optimisation of connections to accelerate heat network deployment in the UK.

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Project TORCH:

Tool for Optimising decisions for the Recovery of sewer Catchment Heat (built on the Decisio™ platform)

Stage: Deployment / Commercialisation

Innovation Summary

Decisio™ heat recovery is an AI-assisted decision-support tool that allows planners to assess heat recovery opportunities for an entire city area, turning slow, fragmented, case-by-case assessment into rapid, whole-system heat network planning at scale. Project TORCH focused on wastewater heat recovery and on developing a methodology for the water sector to assess risk on networks and treatment.

Government has committed to connecting 20% of buildings to heat networks by 2050. There is currently a gap in tools that allow to systemically and rapidly assess the opportunities to recover heat and assess the techno-economic viability of heat network options. Early feasibility is done on a case-by-case basis and using traditional approaches. For wastewater heat recovery, data sits within the water companies' systems and it is difficult to access, thus this option is often disregarded. However, estimates indicate that there could be over 20TWh a year of unexploited thermal energy in the sewer.

Project TORCH was created to close that gap. Funded through the Ofwat Innovation Fund and led by Anglian Water, it brings together water companies (Anglian Water, Thames Water, Severn Trent), Peterborough City Council, the Universities of Sheffield and Exeter, technology developer Decisio (formerly BMA) and Oxane Energy (formerly Noventa), heat recovery specialists who fund, own and operate low-carbon energy infrastructure.

Built on Decisio's decision-intelligence platform, TORCH applies AI and advanced analytics to whole-system heat planning. It ranks viable heat sources across a region, sizes heat recovery technology, generates and evaluates distribution route options and then optimises the interventions based on cost, carbon and feasibility. This data-driven approach reduces dependency on prior knowledge and human bias, giving every stakeholder a shared, evidence-based view.

Its scope extends beyond wastewater to other sources of waste heat, such as data centres, reservoirs and raw water. It is now in deployment, with a live pilot in Peterborough and methodology extending to Thames Water and Severn Trent, moving into implementation and commercialisation.

The innovation is not a single technology but the integration: combining fragmented data, engineering knowledge and AI optimisation into one platform that makes previously invisible heat opportunities visible, comparable and actionable.

Impact

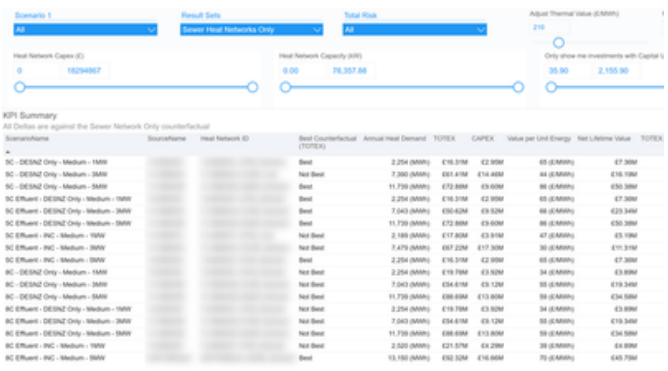
Project TORCH accelerates the shift from fossil-fuel heating to low-carbon heat networks:

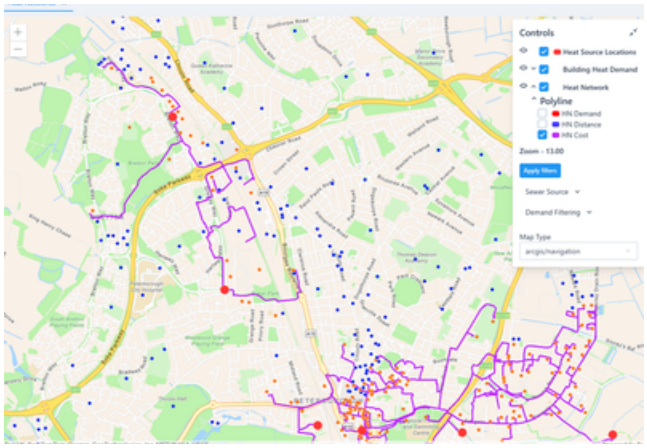
Cost savings: rapid, data-driven optioneering replaces slow, case-by-case studies, cutting planning time and cost and identifying lowest-regret, most cost-effective schemes, lowering customer heat bills. In a 5 MW, 50-year pilot run, the sewer-source network's total expenditure was £17.0M (19%) below individual heat pumps and £6.7M (8%) below an air-source heat network.

Carbon reduction: the same run saved 69,150 tCO2e (93%) against the no-intervention case, bringing forward low-carbon heat that would otherwise remain untapped.

Energy security and demand: recovering local waste heat cuts reliance on imported fossil fuels and grid pressure: the pilot needed 563 kW of new grid reinforcement, 58% less than heat pumps and 38% less than an air-source network.

Just transition: TORCH gives water companies, local authorities and communities a shared, transparent evidence base, so investment is planned openly with benefits and risks fully understood.







Timeline

Project TORCH began in July 2025, funded through the Ofwat Innovation Fund's Water Breakthrough Challenge. Development has been led by Decisio in collaboration with all project partners. The heat network tool builds on existing capabilities of the Decisio™ Cloud for Energy Transition solution.

Phase 1 (Jul 2025 to Jun 2026) delivered platform development and pilot testing in Peterborough. Phase 2 (Jul to Dec 2026) covers knowledge sharing, commercial launch and industry rollout. Phase 3 (2027) targets national scaling and integration with heat network zoning, extending the methodology to further water companies and waste-heat sources beyond funded scope.

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Advanced Design Service

Stage of Innovation: Commercialisation

Innovation Summary

REHAU Advanced District Heating Support is underpinned by a collaboration that created: LINEAR Analyse District Heating software to transform network concepts into implementation-ready digital models. Combining CAD-based design, advanced hydraulic calculations and REHAU's real-world district heating expertise, the service optimises network layouts, automates material selection and delivers accurate, construction-ready designs with coordinated bills of materials.



REHAU Advanced District Heating Support was developed in response to the lack of digital tools that could transform early-stage concepts into technically robust, cost-effective and buildable heat networks while meeting evolving industry standards and future capacity requirements.

REHAU partnered with a software specialist to combine advanced digital planning technology with decades of real-world district heating expertise. The software integrates route planning, hydraulic calculations, heat loss analysis, pipe sizing and material determination within a single workflow, enabling faster and more accurate design decisions.

What differentiates the solution is the combination of sophisticated software and practical delivery expertise. Unlike traditional design approaches that rely on multiple disconnected tools and manual calculations, REHAU's service integrates all REHAU pipe systems and a neutral system within a single digital network model, optimising material selection and generating coordinated bills of materials alongside installation-ready designs.

The technology can model complex network configurations including branched, looped and meshed systems, while incorporating multiple heat sources, pump stations, temperature regimes, elevation data and future expansion scenarios. Advanced algorithms identify optimal pipe dimensions, predict heat losses, calculate hydraulic performance and automatically generate coordinated bills of materials and installation-ready design documentation. This innovation helps accelerate heat network deployment by reducing design risk, improving accuracy, streamlining project delivery and future-proofing networks for long-term expansion. In doing so, it bridges the gap between feasibility studies and construction-ready designs, helping drive the transition to sustainable, low-carbon heating.

Impact

REHAU Advanced District Heating Support contributes to carbon reduction by optimising network design at the planning stage, where the greatest long-term performance gains can be achieved. Through advanced hydraulic modelling, heat loss analysis and pipe sizing optimisation, the service helps minimise distribution losses, reduce pumping energy requirements and improve overall network efficiency.

By integrating route planning, material specification, network calculations and bill-of-material generation within a single workflow, the platform reduces design time, minimises over-specification and helps avoid costly redesigns during construction, delivering significant cost savings across the project lifecycle.

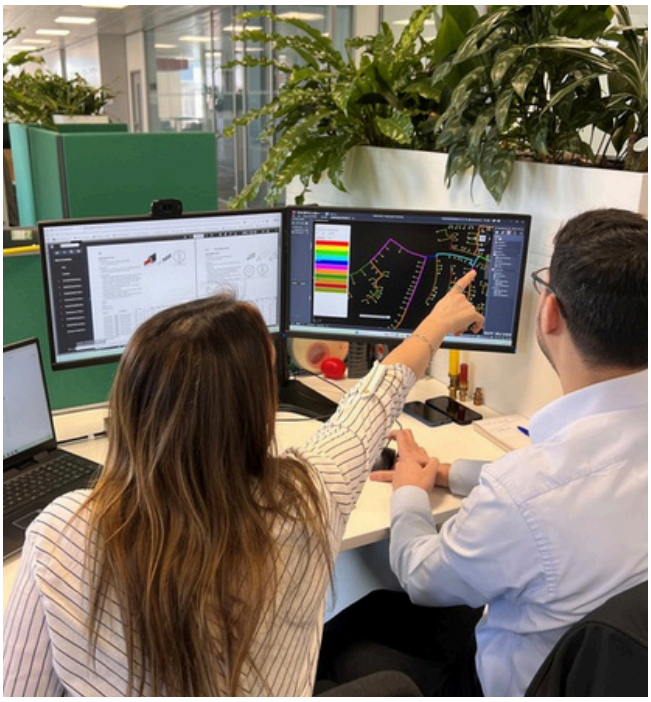
The solution also supports energy security by accelerating the deployment of heat networks capable of integrating diverse low-carbon heat sources, including heat pumps and future renewable energy assets, while enabling long-term capacity planning and network expansion.

Timeline

Development of this solution began in Q4 2023 with research into software partners capable of delivering the requirements. During early 2024, the project scope, deliverables, and partnership model were defined, leading to software development commencing in late 2024.

An agile methodology was adopted, enabling continuous testing and close collaboration with the software provider and REHAU ensuring the service aligned with customer needs.

By early 2026, the software had become an essential tool for the REHAU technical team, supporting customer design support. Today, the package is being trialled with key accounts, delivering highly accurate reports and design outputs that were previously unavailable.



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NextGen Smart Integrated Heat Metering & Solution

Secure Meters UK Limited

Stage: Product Deployment & Commercialisation

Liberty Calorio 200 integrates MID-certified heat measurement, smart metering, HAN/WAN communications, enabling direct connectivity using established IoT cellular technologies and cybersecurity into a single compact integrated unit. By eliminating separate gateways and associated wiring, it reduces CapEx, installation complexity and ongoing OpEx while enabling scalable IoT connectivity.

The solution supports Credit, Accounting and PAYG modes, consumer engagement through in-home display & mobile app, with greater transparency of tariffs, energy consumption, usage trends and CO_2 information , and open interoperability with Multifuel monitoring via third-party heat, cooling and water meters. It also integrates HIU monitoring, enabling remote diagnostics and condition-based maintenance, improving reliability and reducing site visits.

The communication architecture is designed to protect metering data throughout the communication path, with measures against interception, tampering, and unauthorised device access. AES-128 encryption and security practices aligned with the ISO 27001 framework provide a robust security foundation for communications and remote device management.

Overall, Liberty Calorio 200 delivers a scalable, secure and cost-effective platform for digitalising UK heat networks, supporting improved consumer outcomes and the objectives of HNTAS and Metering Monitoring Standard (MMS).

What Makes Liberty Calorio 200 Different?

The key differentiator is easy end-end integration and Integrated Heat Meter built-in coms hub gateway (All in one). Traditional heat metering often follows an architecture where multiple meters communicate through dedicated gateways, concentrators, riser/lateral infrastructure and associated cabling. Traditional architecture requires: Meter → Wired/Wireless Network → Gateway → Communications Network → Head-End System (This can require additional infrastructure, installation, configuration and maintenance). Liberty Calorio 200 moves away from this model by integrating the key smart metering and communication functions directly into the meter. Liberty Calorio 200 Architecture - Integrated Smart Heat Meter → Cellular Network → Backend , with local BLE HAN connectivity for consumer interaction. This approach can substantially simplify deployment, particularly where installing dedicated communications infrastructure is difficult or economically unviable.



Impact

Business and Customer Impact **:** The innovation is designed to deliver value across the complete lifecycle of a heat metering deployment. ***Lower CAPEX*****:** By reducing dependency on additional gateways, concentrators and dedicated communication infrastructure, the solution reduces the overall system cost (TCO-Total cost of ownership) by 25-30% ***Lower Installation Cost and Time*****:** A more integrated architecture can reduce cabling, infrastructure installation and commissioning requirements ~ 20% reduction in time & cost. ***Reduced OPEX*****:** Fewer infrastructure components mean fewer assets to maintain, monitor and replace over the operational life of the system. ***Improved Data Availability*****:** Local data storage and store-and-forward functionality provide resilience against temporary communications failures and help protect billing data continuity. ***Improved Consumer Experience***: Consumers can access clearer information about their consumption, tariffs and costs through connected interfaces, supporting greater transparency and engagement. ***Flexible Commercial Models:*** The same metering platform can support different operating and payment models, including credit, accounting and PAYG, reducing the requirement for separate / additional hardware solutions and offering scalability, from min feature to maximum features, without retrofit or site visit. ***Future-Ready Platform*****:** The solution has been designed with evolving HNTAS and MMS expectations in mind, helping network operators avoid premature technology replacement and supporting longer-term investment protection.

Timeline

The Liberty Calorio is targeted for market release in Dec 2026 - Jan 2027 It's been developed internally by Secure Meters in-house development team. The project itself has taken a total of 18 months, during which Secure has engaged with Secure Meters target audience, validated the benefits to be realised, and is now preparing for market launch. Overall product and solution includes development of :

1 – MID-certified measurement unit with smart capability, gateways, WAN/HAN

2 – Smart metering System to support smart features

3 – In-home display unit

4 – Mobile & Installer Apps

5 – Extended web-based service to provide HNTAS-ready data.

The Proof of concept was validated by feedback from key ESCOs & M&B providers . User acceptance testing started in July , & The first phase of the innovative offering is scheduled for launch in September 2026 and deployment in local authorities & key hous ing associations rolled out in August 2026. Part of the products & solutions is due for field trials & proof of concepts and subsequently commercially available from Feb-March 2027 timelines.

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Smart:Portal

Smarter Regulation Solutions Ltd.

Stage of Innovation: Deployment

After just one week of comparison, a pilot organisation moved every heat network in the pilot onto Smart:Portal.

Smart:Portal turns Ofgem regulatory requirements into everyday actions for heat network teams - organising documents, providing approved guidance, tracking progress and supporting the team with controlled AI. It helps protect consumers, reduces administration and provides a single, easy to use place to view and download your evidence and progress.

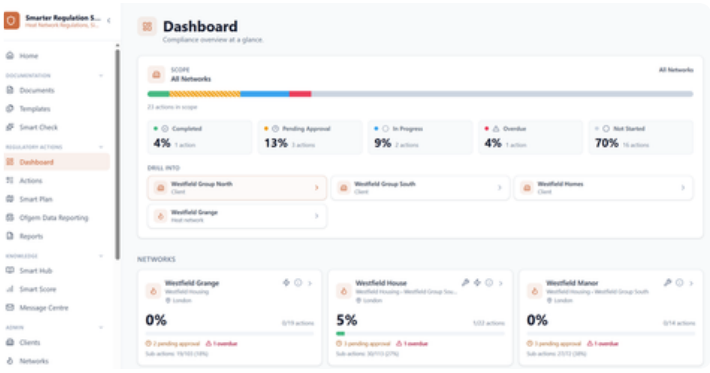
Innovation Detail

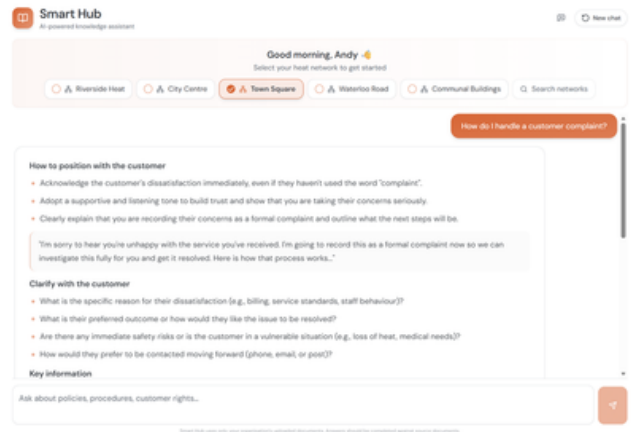
Smart:Portal was created to deliver better consumer outcomes, consistently. Simplifying the journey to becoming regulated and staying on track is the focus. Enabling Suppliers and Operators to build and run Heat Networks with the confidence that regulations and being observed in practice and consumers are benefitting with good outcomes can now be achieved without the need for regulation experts and a high administration burden. Development began in late 2025 with policies and processes, drawing on our experience in energy supplier operations and the Energy Ombudsman. But documents alone cannot deliver good consumer outcomes. Teams need to apply those standards consistently when supporting consumers. That insight shaped the evolution into Smart:Portal.

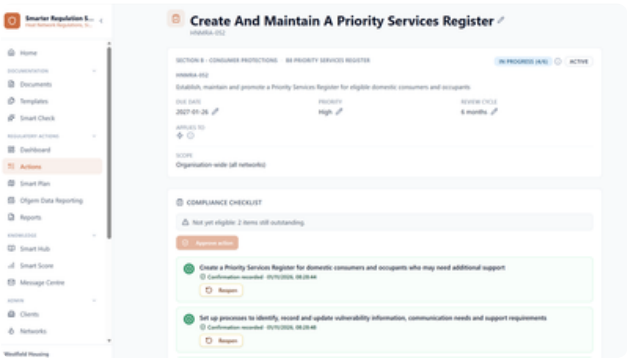
Smart:Portal connects that work in one platform. Regulatory obligations become operational checklists with recorded proof, review dates and accountable owners. Managers can see progress across networks and distinguish outstanding work from actions awaiting approval. The same approach supports frontline decisions. Smart:Hub answers questions using approved documents within the user's access permissions. Smart:Check helps teams examine documents, evidence and customer communications against relevant requirements, identifying what they address and where information is missing. The innovation is the connection between regulatory knowledge, operational execution and consumer-facing practice. Current documents, organised actions and a single record of who did what bring internal teams and external contributors into an accountable process. Records can be downloaded as evidence when needed, reducing the work of reconstructing activity across separate systems. Piloted from August 2026 and now supporting four live heat networks, Smart:Portal brings established energy-sector experience into a practical service for heat network teams. Its purpose is to make high standards of consumer protection easier to deliver as the sector decarbonises.

Impact

We are at the beginning of our deployment journey. A pilot organisation has tested Smart:Portal against a parallel compliance approach. After a week, it moved all its heat networks onto the portal because the practical benefits were already compelling. These included organised actions, documents and a single downloadable record showing what had been done when, by whom, inside or outside the organisation. Smart:Portal now supports 4 live heat networks. Savings have not yet been quantified, but reducing administration can free capacity and funding for low-carbon heat delivery. Approved guidance and accountable workflows help teams protect consumers throughout that transition. Smart:Portal also aims to build confidence to develop heat networks in a regulated environment. It makes requirements and progress visible, bringing tailored policies and processes into everyday use so teams can apply good practice when supporting consumers.







Timeline

Development began in late 2025, initially focused on policies and processes for heat networks. Recognising that documents alone do not deliver good consumer outcomes, we developed Smart:Portal to help teams apply those standards in everyday work. The pilot launched in August 2026 and supports 4 heat networks. We continue to work with organisations on developments that make Smart:Portal as easy and intuitive to use as possible, the rest of 2026 is focussed on working together with users to achieve this. The next rollout will integrate Smart:Hub with frontline systems, bringing approved knowledge directly into the tools customer-facing teams already use.

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Optimise

Innovation Stage: Commercialisation

Optimise is a digital heat network optimisation service that converts half-hourly meter data into targeted instructions for engineers. By identifying the poorest-performing properties and creating clear site-visit briefs, it improves reliability, efficiency and carbon performance without major capital works. After each visit, Optimise verifies impact by comparing pre- and post-intervention consumption, supporting continuous improvement across heat networks.

Innovation Detail

Starting as a bespoke service offering for a few clients, Optimise has evolved into a scalable solution, driven by the rapid expansion of the heat network market and reports from operators who wanted to improve network performance but lacked the visibility and resources to justify capital expenditure interventions.

Heat networks have historically lacked effective monitoring and proactive maintenance, leaving operators with limited visibility of energy losses and system performance. Supporting this, Switch2 found that over half of heat networks did not monitor gas use for tariff calculation. Among those that did, 67% operated below 50% efficiency, using more than 2 kWh of gas to deliver 1 kWh of heat, driving up emissions and customer bills.

Optimise addresses this challenge by turning meter data into actionable insights. It captures half-hourly heat, flow temperature, return temperature and volume data from each property's Heat Interface Unit, analysing it daily to identify faults and inefficiencies. Engineers receive targeted briefs before attending on-site, allowing them to resolve issues faster and replace routine cyclical maintenance with proactive, evidence-led interventions.

Unlike conventional monitoring tools, Optimise identifies faults that remain hidden for years, including open flushing bypasses, seized valves, incorrect commissioning set points and stay-warm settings left enabled. It pinpoints the cause and verifies the impact of corrective action using measured performance data rather than modelled hypotheses.

A key innovation is that Optimise requires no new hardware or on-site infrastructure. It uses data already collected by existing metering systems, making it simple to implement across new and existing heat networks, regardless of building type or portfolio size.

Optimise is now an operational, proven service deployed across 94 heat networks and 18,646 monitored properties. To date, it has processed 5.4 million meter readings and over 1.5 billion half-hourly data points, helping operators improve efficiency, reduce carbon emissions, and lower operating costs.

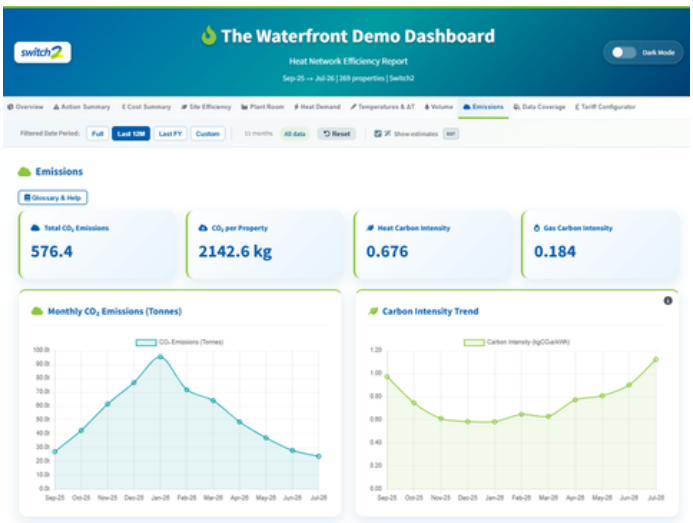
Impact

Interventions have delivered an estimated £10,100 annual operating cost saving and reduced emissions by around 15 tonnes of CO_2e per year through improved boiler efficiency, lower return temperatures, and reduced pumping demand.

Individual case studies demonstrate the impact. In Islington, network volume throughput fell by 60.8% year-on-year and VWART improved by 4.0°C, with average per-property savings of 130 m^3/year at visited meters.

In Greenford, volume throughput fell by 27.7% and return temperature improved by 9.7%, with projected savings of £1,540 and 2,669 kg CO_2e across visited properties. In Fulham, volume-to-energy performance improved by 44.1%, saving 11,187 m^3 of network volume across 72 visited properties with projected annual savings of £1,678 and 2,909 kg CO_2e.

Using existing meter data to target waste and maintenance, Optimise supports a just energy transition by lowering costs, cutting carbon, and improving network reliability without disruptive major works through small, targeted fixes that produce measurable benefits.





Timeline

Optimise has been supporting operators since January 2025, with deployment expanding month by month. As the service grows, fresh field intelligence continuously drives increased accuracy of remote diagnostics and reduces the need for repeat site visits – providing a scalable model that contributes to the resilience and long-term efficiency of heat networks.

A knowledge transfer partnership with the University of Bradford is now underway to develop physics-based digital twin technology, using machine learning to improve pattern recognition and model the impact of wider network interventions, to help clients prioritise investment more effectively and support Optimise's continued technological advancement.

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