



HEAT NETWORK
EFFICIENCY SCHEME

Heat Network Efficiency Scheme (HNES)

Scheme overview

Funding to help improve existing
district or communal heating projects



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The challenge

The 2018 Competition and Markets Authority report¹ found that although operational heat networks offer customers a cost-effective and efficient supply of heat compared to alternatives, some customers experience poorer outcomes in terms of price and service. Previous work by the Department for Business, Energy and Industrial Strategy (BEIS)² (now the Department for Energy Security and Net Zero) has indicated that some existing heat networks in England and Wales are operating sub-optimally, leading to customer detriment. In addition, the cost-of-living crisis has resulted in additional pressures on energy tariffs for some heat network customers, particularly where networks operate at lower efficiencies and increasing fuel costs are passed through.

Large scale investment is essential to the development of this market and HNES forms a key part of the Government's Heat Network Transformation Programme (HNTP) – this aims to continue to develop and grow the heat network market and to address some of the challenges of decarbonising the UK's heat sector.

The Heat Network Efficiency Scheme was launched to help improve existing heat networks by enabling optimisation studies to identify actions to optimise heat network operation and in the delivery of eligible intervention / improvement measures.

¹ [Heat Networks market study: summary of final report - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/714444/Heat_Networks_market_study_summary_of_final_report.pdf)

² [Heat Networks Consumer Survey: consumer experiences on heat networks and other heating systems - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/714444/Heat_Networks_Consumer_Survey_consumer_experiences_on_heat_networks_and_other_heating_systems.pdf)



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What is the Heat Network Efficiency Scheme (HNES)?

The aim of HNES is to improve heat network performance in existing/operational projects where customers and/or operators are experiencing sub-optimal outcomes. In particular, HNES focuses on addressing customer detriment as a way of supporting heat network consumers impacted by the cost-of-living crisis and the cost-of-energy crisis, with focus on where customer need is greatest. The grant scheme has proven extremely popular so far, and we have received many high quality applications which will deliver significant benefits for consumers, reducing cost and carbon emissions.

HNES is a £77 million grant scheme:

- Available in England and Wales
- Open to Public, Private and Third sectors
- Supports efficiency improvements to existing networks
- Competitive application process

HNES is open for applicants from projects that will:

- Reduce carbon emissions by making heat networks more efficient
- Reduce customer detriment to improve consumer confidence
- Help prepare the heat network market for sector regulation and technical standards

Who Can Apply?

HNES is open to applicants that are responsible for operating or managing existing district heat networks or communal heating systems in England and Wales:

- **Public sector** organisations including Local Authorities and other government departments
- **Private sector** organisations that are registered companies and submit annual accounts
- **Third sector** organisations such as registered charities, community investment companies and other such organisations that are officially registered and submit annual accounts
- **Health and education sector** organisations including NHS Trusts, universities and colleges

Successful applicants will be the recipients of grant funding and will be responsible for ensuring that grant funds are deployed in accordance with the funding award, i.e., procuring or mobilising third parties to deliver the funded activities.

Applicants must be legal entities, with authority to sign off investment decisions for the heat network they are responsible for and instruct delivery of funded works. Individuals cannot apply to HNES.

Please refer to Section 2.1 of the Guidance for Applicants³ document for further information on who can apply.

³ [Heat Network Efficiency Scheme \(HNES\): guidance for applicants \(publishing.service.gov.uk\)](https://publishing.service.gov.uk)



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What will HNES Fund?

Applicants can apply to HNES for either revenue grant funding or capital grant funding.

Revenue grants

- HNES budget up to £2m across FY23/24 and FY24/25
- Funding is available for procurement or mobilisation of external third-party support to carry out Optimisation Studies. These studies will assess heat network projects to identify causes of sub-optimal performance and recommend costed intervention or improvement measures. Please see Annex A of the Guidance for more information.

Capital grants

- HNES budget up to £75m across FY23/24 to FY27/28
- Part-funding available for the delivery (installation) of eligible intervention/improvement measures.

Through these two grants, HNES supports existing/operational district heating or communal heating networks to:

- Identify improvement measures for addressing customer detriment and improving operational performance (revenue), or
- Address customer detriment and improve operational performance (capital).

Below are some examples of measures that may be eligible for support. A full list of eligible measures and ineligible costs is also provided in the HNES Guidance for Applicants document.

- Reconfiguration of heat supply pipework hydraulic arrangements
- Pump or pipework replacement or removal
- Recommissioning or replacement of Heat Interface Units (HIUs)
- Heat generation plant controls
- Improvements to thermal storage or tertiary system controls
- System balancing/ flushing
- Heat distribution network controls
- Insulation of pipework
- Installation of metering equipment or smart solutions

Applications can be made for projects that consist of different customer types (e.g., residential, commercial, or mixed), and there are no restrictions on the existing/operational primary heat generation plant (boiler, heat pump, CHP etc.). District cooling systems can be included within the scope of a project application, where improvements to these systems meet the HNES Objectives.



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Level of Support

The funding can provide:

- Up to (but not including) 50% of eligible project costs (incl. non-recoverable VAT if requested in the application form) for capital grant applications.
- Up to 100% of eligible project costs (incl. non-recoverable VAT if requested in the application form) for revenue (Optimisation Study) grant applications.

HNES will typically fund between £15,000 and £24,000 (incl. non-recoverable VAT) per project for revenue grant funding applications, depending on the scale of each project for which the application is made. Applications for funding awards outside of this budget range may be submitted by applicants, but will need to include compelling justification as to why this is considered appropriate.

Case Study

HNES Demonstrator Revenue Project – Hackney Council

Hackney Council received around £41,000 to undertake two Optimisation Studies. They wanted to understand and improve the efficiency and performance of each network, which in turn would support a move towards decarbonisation, ensure all costs were being recovered, lower the administration of the networks, and discover learnings that could be applied across their entire heat network portfolio. They appointed Chirpy Heat, who through data gathering and site visits identified 18 efficiency measures. If implemented, these would save £3,000 annually in energy costs and reduce carbon emissions by 676 tonnes over a 20-year period. Hackney now intends to apply for further HNES funding to implement the measures identified.

“The HNES Demonstrator funding allowed us to give our heat networks a health check, and to understand the impact of efficiency with little to no capital investment.” **Daisy Clarke – Mechanical and Gas Service Manager, Hackney Council**

Assessment Process

Once projects have completed an application form and submitted this (with required supporting evidence), it will be assessed and scored against the HNES criteria by our technical assessment team.

Applications are awarded funding on a competitive basis. This means that even if an application meets all the eligibility criteria and scores well, there is no guarantee of a funding award. Funding will be allocated to maximise benefits and will prioritise projects which provide value for money and address:

- Customer detriment (prioritising projects with higher proportions of “residential customers in need”).
- Network operational performance (efficiency/losses) and deliver carbon emissions savings.



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Details of the assessment process and criteria used are provided within Section 1.4 of the Guidance for Applicants document.

When can I apply?

HNES is a multiple-funding-round revenue and capital grant support programme with funding to be deployed from FY23/24 to FY27/28.

The timings of future funding rounds are provided in the table below. Whilst we will endeavour to align rounds with these timings, changes could be made by exception. We will inform stakeholders via our mailing list⁴ of any changes to the submission dates.

HNES Funding Round	Final Application Submission Date for Inclusion in Funding Round
Round 9	Friday 28th March 2025
Round 10	To be confirmed

Completing your application

Full details of the support available, the scheme criteria and the application process can be found in the HNES Guidance for Applicants that is available to download from the documents section of the [HNES webpage on the GOV.UK website](#).

Our dedicated team is available to help guide you through the process and answer any questions you may have.

Contact us to discuss your application by emailing HNES.support@gemserv.com

If you are considering applying for funding, please contact HNES@gemserv.com with an overview of your scheme and an indication of which funding round you aim to submit an application. We recommend attending an application seminar and requesting a meeting with our relationship managers to discuss your application before preparing your submission.

When you are ready to apply, please contact HNES@gemserv.com to request the application pack.

Further Information

Should you or a colleague wish to join the HNES mailing list and be kept up to date with latest announcements, news and events, please email the HNES team via HNES@gemserv.com. The HNES application guidance and relevant documentation can be found on the gov.uk website; [Heat Network Efficiency Scheme \(HNES\) - GOV.UK \(www.gov.uk\)](#)

⁴ Please contact hnes@gemserv.com to be added to the HNES mailing list.



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Case Study

HNES Demonstrator Capital Project – Notting Hill Genesis

Notting Hill Genesis received around £310,000 to undertake improvement works to their heat network, Mildmay, which provides heat to 139 residential connections, a hospital, and a church, constructed in 2014 in Shoreditch, East London. This district heating system has central gas boilers and underground pipework between plant rooms and blocks. Prior to the HNES optimisation study, the system was unmonitored and expected to have poor performance. The network suffered from high flow and return temperatures and variable delivery of heat and hot water, particularly during peak hours. Prior to the undertaking of a HNES optimisation study, Mildmay was an unmonitored heat network. Guru Systems' smart metering equipment and specialist energy consultancy FairHeat identified three main areas for improvement during the optimisation study; poor HIU performance, poor water quality, and complex hydraulic design, resulting in increased costs for customers, overheating, and unplanned outages. The study led to recommendations on interventions to improve performance including the installation of new HIUs, smart metering, recommissioning of space heating systems and upgrades to insulation within the dwellings. Across the network, the substations were decommissioned, commercial connection valves were introduced, controls were upgraded, and a hydraulic system redesign was commissioned. These activities resulted in lower flow and return temperatures being achieved across the network and therefore a reduction in gas consumption. Flow and return temperatures were reduced with more stability, and a 25% reduction in gas consumption was achieved, resulting in lower bills for residents and lower carbon emissions.

"The HNES Demonstrator funding enabled us to identify and rectify our worst performing heat networks. Notting Hill with its partners have now completed works that have increased efficiency, customer satisfaction and stakeholder opinions of our heat networks. The HNES Demonstrator has started a process of identifying heat network improvement opportunities and given us the confidence to deliver more this financial year." **Daniel Perager – Head of Heat, Energy and Water, Notting Hill Genesis**

Who is running the Scheme?

Gemserv has been appointed by the Department for Energy Security and Net Zero as the HNES Delivery Partner, supported by Ramboll, Turner and Townsend and Lux Nova.

Gemserv

- Overall scheme delivery
- Application management
- Monitoring and reporting
- Comms and events

Ramboll

- Application assessment



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Turner and Townsend

- Pre-application engagement and support

Lux Nova Partners

- Legal advice

More information about the HNES Delivery Partner team can be found on [Heat Network Efficiency Scheme HNES | Gemserv Delivery Partner](#)