The Greener Heating Toolkit

For North Tyneside Businesses and Third Sector Organisations

North Tyneside Council

ACTION ON CLIMATE CHANGE NORTH TYNESIDE

Greener Heating?

Moving towards a more efficient heating system that runs on low-carbon fuel is an important step to cutting both your fuel bills and your carbon emissions. This can make good business sense; however, we recognise that today's rapidly changing heat landscape can make the switch difficult.

If you're not sure whether the switch is for you, here is a selection of some of the key benefits.

- Reduce your energy bills
- Meet Net Zero targets
- Improve your business' green credentials
- Increase property value
- Reduce your exposure to future energy price rises
- Reduce carbon emissions and improvements in air quality
- Win new contracts, especially with the public sector

These are some of the key motivations behind the North Tyneside Green Heat Guide. We want to empower businesses with the information and resources they need to switch to more environmentally friendly heating options.

The following pages contain the roadmap for your green heating journey.

They highlight some of the first steps you could make, as well as some key tips to ease the journey. We know new technology can come with financial hurdles, so we offer guidance on crafting a compelling business case, along with a rundown of available government incentives designed to promote green heating solutions.

Keeping North Tyneside Warm

Heating is a key component of the productive workplaces in North Tyneside. Most of this heat supply comes from fossil fuels, with 2,700 non-domestic properties in the borough having their main fuel type classed as gas.

1. Heating accounts for up to 80% of the gas usage in non-domestic buildings.

2. Gas is the source of almost 60% greenhouse gas emissions from the commercial sector in North Tyneside.

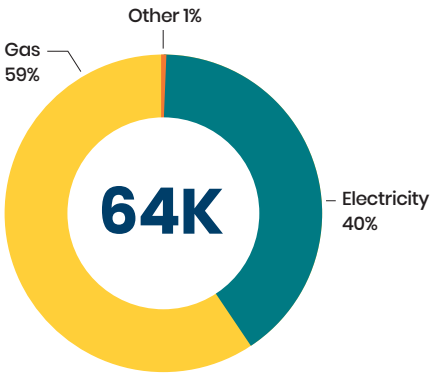


Figure 2: Commercial greenhouse gas emission North Tyneside

3. Buildings in the service sectors tend to use more gas for their size than industrial and commercial buildings.

4. The prices of energy have skyrocketed to become a large proportion of business total purchases.

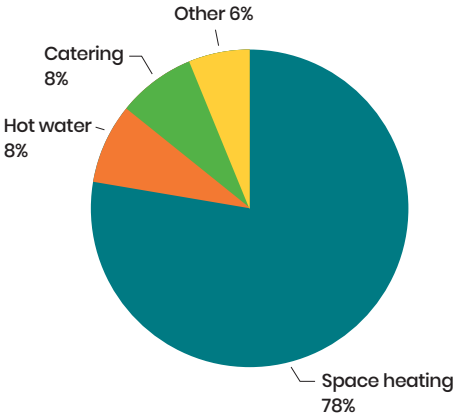


Figure 1: Non-electric energy end use by non-domestic buildings

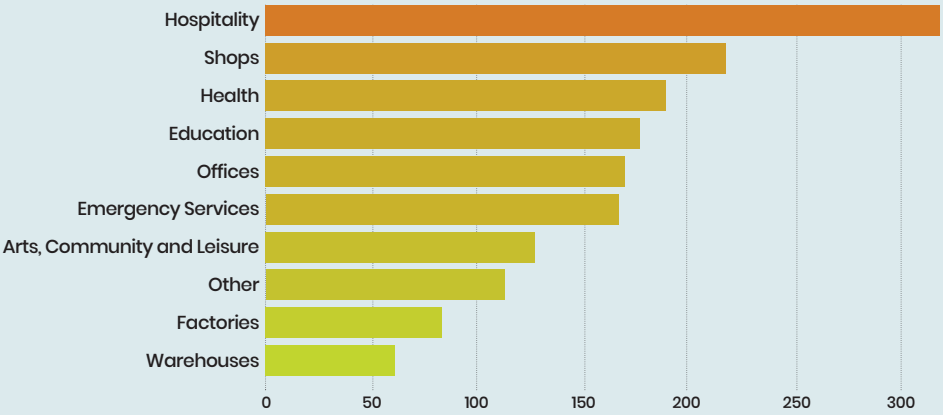


Figure 3 (above): Average gas consumption per sq metre

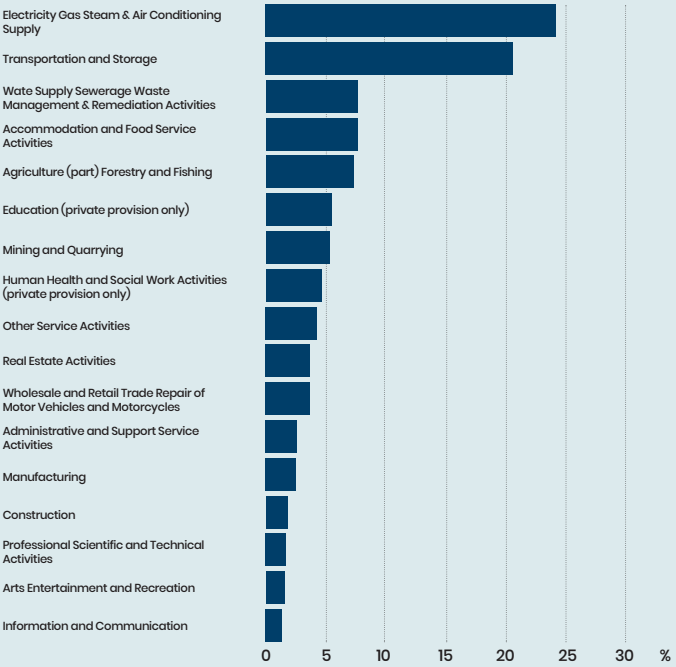


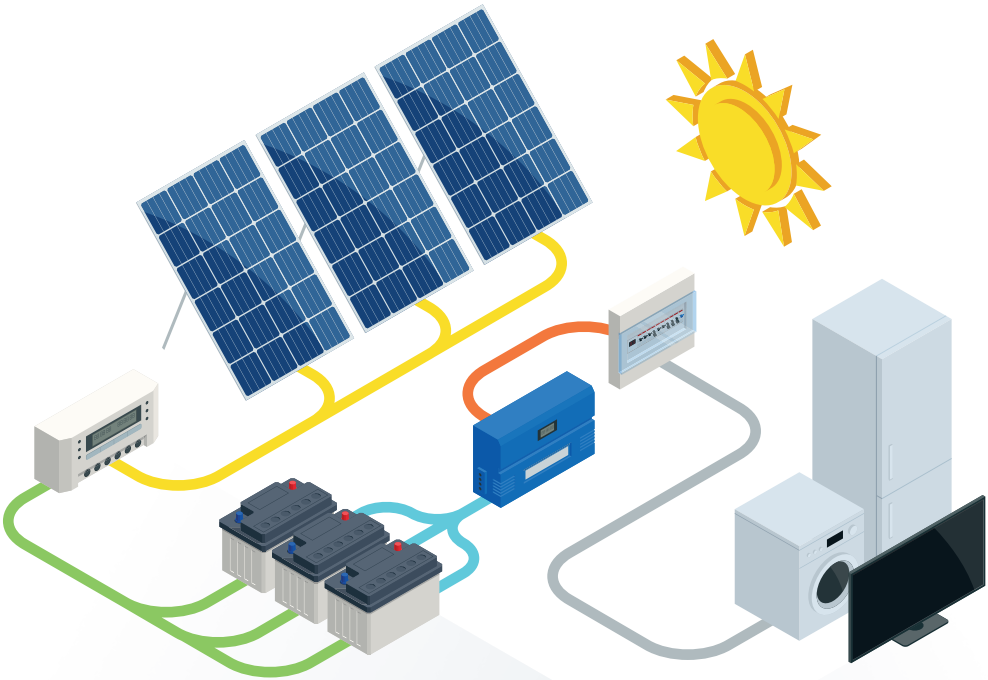
Figure 4: % of business spending on energy by industry

Challenge

Heat is much less standardised than electricity, with requirements that are specific to buildings and processes served.

For every 100 qualified gas engineers in the UK there are **less than two low carbon heating engineers**

There's no silver bullet solution. A blanket approach like all-electric or all-hydrogen systems could cost significantly more—around twice or three-and-a-half times as much—compared to a tailored approach that selects the most suitable low-carbon heating solutions based on your business' data.



Options

Heating solution	Positives	Negatives
Heat pumps: Devices that transfer heat from a lower temperature to a higher one using electricity, providing both heating and cooling.	✓ Provides clean heat ✓ Eligible for grants ✓ Can provide both heating and cooling	× Efficiency very sensitive to outside temperatures × Space Requirements: Heat pumps require outdoor units
Biomass: Utilises organic materials such as wood pellets or chips to generate heat through combustion.	✓ Renewable, Carbon Neutral Energy Source	× Limited supply of feedstock × Could be used for food rather than energy × Can be difficult to meet air quality standards
Electric heating: Converts electrical energy directly into heat, typically through resistance heating elements.	✓ Provides clean heat ✓ Simple Installation	× Inefficient compared to heat pumps × Can lead to strain on power grid × High running costs
Solar thermal heating: Systems that collect and use sunlight to heat water or air for various applications.	✓ Renewable Energy Source ✓ Low Operating Costs ✓ Environmentally Friendly	× Weather Dependency × Initial Cost × Space Requirements
District Heating: Infrastructure that centralises the production and distribution of heat to multiple buildings or homes from a single source.	✓ Energy Efficiency ✓ Cost Savings	× Lack of Control × Infrastructure Costs × Low Coverage

Solution

Understanding Your Energy Usage
Before diving into heat decarbonisation, it's essential to grasp how your business consumes energy. By analysing data, you can pinpoint areas for improvement and optimise energy usage. This understanding lays the groundwork for effective management.

Developing a Heat Strategy
An effective heat strategy follows a logical sequence: reduce, reuse, generate, and offset. This structured approach ensures a systematic and comprehensive approach to decarbonisation.

Reducing Energy Demand
One key aspect of heat decarbonisation is cutting down on energy demand. This involves simple yet impactful measures, including:

- **Insulation:** Enhancing insulation to minimise heat loss.
- **Automation and Control:** Implementing smart automation and control systems to optimise energy use.
- **Equipment Upgrades:** Swapping out outdated equipment for more energy-efficient alternatives.
- **Temperature Control:** Adjusting heat delivery temperatures to save energy.

Heat Recovery and Reuse

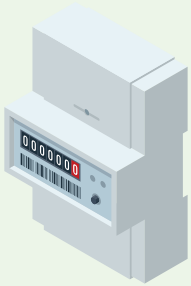
Another effective strategy is harnessing heat recovery and reuse opportunities. Many energy streams within a business contain valuable heat, which can be captured using dedicated heat exchangers or heat pumps, depending on temperature requirements.

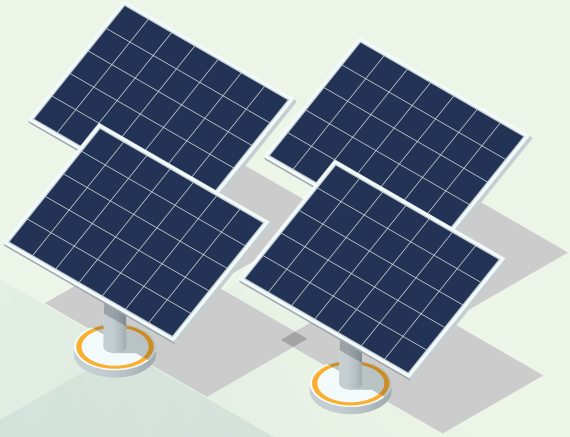
Utilising Low-Carbon Heat Sources

Transitioning to low-carbon heat sources is crucial for decarbonisation. However, finding the right balance between direct electric heaters and heat pumps can be tricky. Additionally, the growing adoption of low-carbon technologies may strain the power grid, requiring careful planning.

Energy Certificates and Offsetting

To achieve full decarbonisation, businesses may need to use energy certificates and offset any remaining carbon emissions. This ensures compliance with regulations and contributes to sustainability efforts.





Grants and support

Almost half of people (48%) have no awareness of low carbon heating.
As of February 2024, the UK government provides a range of grants to encourage the transition to low carbon heating.

Energy Bills Discount Scheme (EBDS)
The Energy Bills Discount Scheme (EBDS) for non-domestic customers limits the amount you can be charged per unit of gas or electricity. It will run for 12 months from April 1st 2023 to March 31st 2024.

Recovery Loan Scheme
The Recovery Loan Scheme supports small and medium sized businesses to access the finance they need to grow and invest. Finance can be used for any legitimate business purpose, including investing in energy efficiency projects.

Industrial Energy Transformation Fund
Grants are available to fund projects to reduce industrial energy consumption and achieve industrial emissions savings as well as feasibility studies before making an investment decision.

Applications are open until 19 April 2024 to businesses of any size across England, Wales and Northern Ireland. Find out how to apply on GOV.UK.

Capital allowances for plant and machinery costs
Companies can write off costs of qualifying plant and machinery investments against their taxable profits over time through the Annual Investment Allowance.

Two further temporary capital allowances also exist up to 1 April 2023. Companies can claim the super-deduction for the costs of plant or machinery investments and the special rate first-year allowance for qualifying expenditure on special rate (including long life) plant and machinery.
Find out more including what type of plant and machinery might qualify on GOV.UK.

Structures and buildings allowance
This allowance is available for qualifying expenditure on the construction of or renovation of non-residential structures and buildings at 3% per annum over 33 1/3 years.
Find out more about the allowance on GOV.UK.

Business rates support for green technology
Business rates are exempt for eligible plant and machinery used in onsite renewable energy generation and storage until 31 March 2035.
This includes rooftop solar panels, wind turbines, and battery storage and onsite storage used with electric vehicle charging points. A 100% relief for eligible low-carbon heat networks which have their own rates bill is also available until 2035. Read the GOV.UK factsheet on business rates.

https://businessenergyefficiency.campaign.gov.uk/financial-support-for-businesses/

Who can help?

If you are interested in developing low carbon heating solutions for your organisation, the link below will take you to the national register for the Microgeneration Certification Scheme (MCS) where you can find products and installers. By using this independent certification scheme for approved products and installers, you can find a certified contractor for your chosen technology near you and details to get in contact with them.

https://mcscertified.com/find-an-installer/

North Tyneside Council is ready to help your business through the green heat transition. Please contact us for guidance and support.

Contact North Tyneside Council

Email: **carbon@northtyneside.gov.uk**

To explore the idea further, we've gathered some useful links and additional resources:

Sources

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