

THE MORAY COUNCIL

ENERGY POLICY AND STRATEGY – NON DOMESTIC OPERATIONAL PROPERTIES

Energy Policy – Statement of Commitment

The use of energy is vital in our operation and the provision of services to our community. The importance of controlling our energy consumption and associated carbon dioxide emissions has never been so high.

The Scottish Government updated the 2018 Climate Change Plan in December 2020. This set out a new ambitious target to end Scotland's contribution to climate change by 2045. Making a commitment to reduce emissions by 75% by 2030 (compared with 1990) and to net zero by 2045. On 10 March 2021 (paragraph 13 of minute refers) the Council adopted a Climate Change Strategy for 2020-2030. The strategy set a goal of the Council being carbon neutral by 2030 and that the Council, its officers and members will work with others across Moray to deliver that goal.

To achieve this the Council will ensure that:-

- Energy management is fully integrated across all relevant decision making to reduce energy consumption, costs and carbon emissions in all buildings it occupies or operates.
- Sufficient resources are in place to meet the objectives of the policy.
- The progress against the objectives of this policy and strategy document is reported to Committee on an annual basis.

The Policy Aims

- I. Manage energy to achieve ongoing improvements through recording, benchmarking, monitoring and reporting on energy consumption and renewable generation associated with the council's non- domestic building stock.**
- II. Minimise energy consumption. Through energy efficiency projects; improving building fabric, replacing lighting and optimising on site renewable generation.**
- III. Reduce direct carbon emissions associated with space and water heat with a target of being as close as practicably possible to net zero by 2030.**

Energy Management

Key to achieving our policy aims is to develop an Energy Strategy setting out how the policy objectives will be met. This strategy applies to all energy use within buildings occupied or operated by the Council. The specific objectives of the strategy are:-

1. To record energy and carbon consumption by using monitoring and targeting processes.
 - Energy consumption in Council buildings is monitored and the information recorded on a suitable database and reported back to the Site Responsible Person.
 - Consumption in buildings is analysed against benchmarks to identify those buildings with the best opportunities for savings.
 - Energy audits will be targeted at inefficient buildings to determine what improvements can be made.
 - Energy invoices will be checked and approved by the Energy Officer for accuracy.
 - Review procedures for processing and checking energy invoices.
 - Ensure that high quality energy consumption data is collated to comply with Carbon Reduction Commitment Energy Efficiency Scheme requirements.

2. To increase awareness of energy efficiency measures.
 - Improve Site Responsible Persons' and Council staffs' awareness of energy issues.
 - Provide training via internal and external advisers/experts to staff directly involved in energy saving activities.

3. Promote and develop new and innovative ways of saving energy/water.
 - Include energy efficiency requirements in design briefs, planning permissions and building warrants, in line with the Routemap to Net Zero.
 - Share information about projects with other organisations in order to spread best practice.
 - Consult an energy specialist when developing new build/refurbishment projects.
 - Implement energy efficiency projects/measures identified from site surveys, data analysis and energy audits.
 - Improve use of Building Energy Management Systems.
 - Monitor compliance with corporate Heating Policy.

4. To reduce water consumption and costs and use water efficiently.
 - Carry out site surveys to identify projects that will improve water efficiency and produce cost savings.
 - Implement water efficiency projects identified from site surveys.

Establishing a Baseline

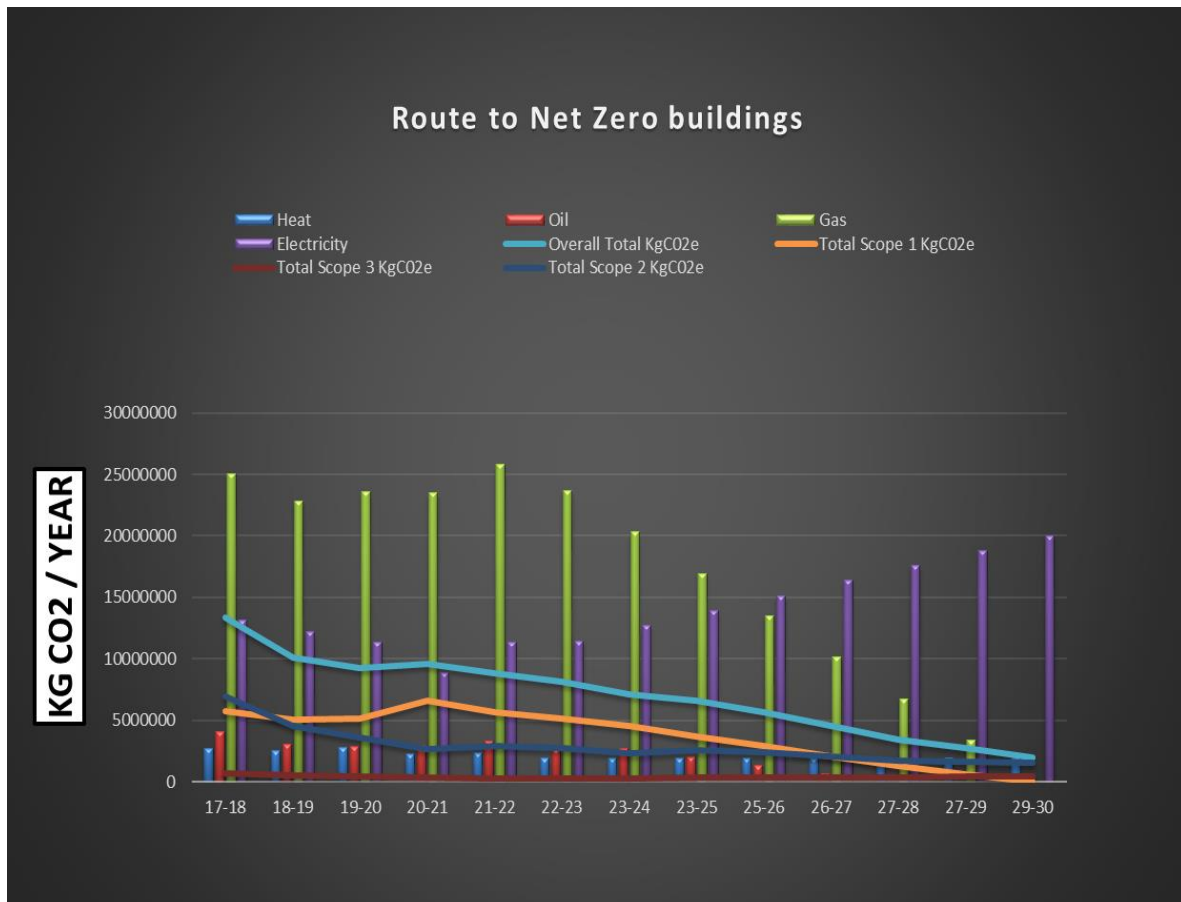
Previous energy strategy documents have used the year 2011-2012 as a baseline with a target of an across the board 2% reduction of all energy consumption. Using this target will not result in NetZero carbon emissions. It also does not take into account the scope of carbon emissions created from the operation of the council's building stock.

Greenhouse Gas emissions are categorised into three scopes. Scope 1 are direct emissions from onsite fuel combustion and company vehicles. In this case the Scope 1 emissions come from Gas, Oil and biomass boilers used to heat our buildings. Scope 2 emissions are indirect emissions from purchased grid supplied electricity. Scope 3 emissions are other indirect emissions from the wider supply chain. In this case the emissions from Grid bought Electricity transmission and distribution losses, Water supply and water treatment of the waste water we produce. In order to meet the council's Net Zero targets it is the scope 1 direct emissions that need to be prioritised for reduction.

In order to bring into line with the climate change Route Map to Net Zero it is important to establish a common baseline. The baseline year used in the Route Map to Net Zero is the year 2017/18. Therefore Energy policy and targeting should be changed to reflect that. Future reporting should be made against this new baseline.

Route to Net Zero Buildings

The graph below shows a best case scenario trajectory towards Net Zero emissions against the 2017/18 baseline. This involves changing heating systems that produce direct emissions to low and zero emissions heating systems. It should be noted that the linear decline in emissions expressed in the graph would not be expected and that there would be step changes in years where larger building assets are connected to low carbon heat sources towards the end of the decade.



Electrical Energy Efficiency

From a carbon emissions perspective electrical energy efficiency is less important than converting heat provision away from gas and oil systems. Ideally all assets would be made as energy efficient as possible. However, wherever it is possible investing in an asset to generate income or spend to save on revenue costs is a relevant approach. There may be occasions when investing in solar panels and LED lighting on buildings where services are old and its fabric below standard is necessary. Therefore LED lighting replacement and solar PV projects should be carried out as a matter of course where feasible on all assets that will remain operational for a period that will make projects financially beneficial

Fabric First

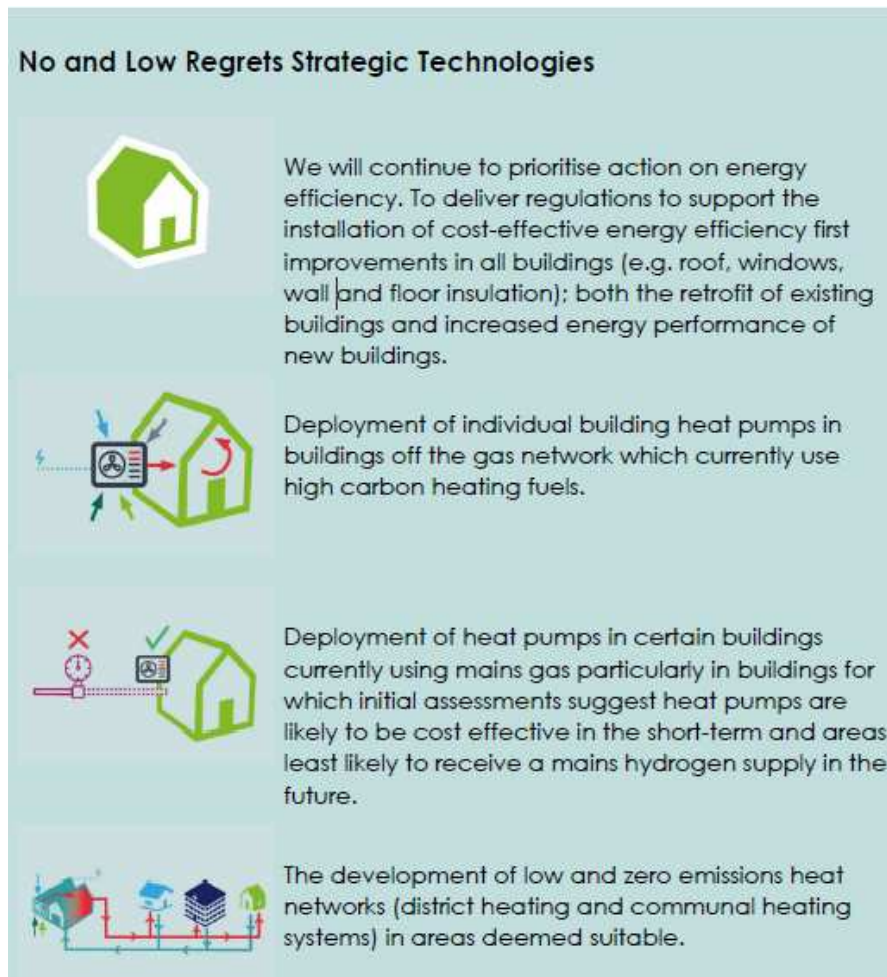
Improving the energy performance of buildings is essential to unlock the rollout of zero emissions heating. Energy efficiency measures alone will not reduce emissions enough to meet our emission reduction targets, but they are a critical precursor to deployment of many zero emissions heating systems. A Fabric First approach should remain at the core of our heat in building policies and programmes, subject to cost benefit analysis.

It should be acknowledged, however, that there may be occasions when the measures needed to improve a building's energy performance to the standard required are not possible. These include, but are not limited to, the method of construction, the cost of measures required, the measures having an unacceptable negative impact on the fabric or structure or the need for 3rd party permission (where this is not forthcoming).

No and Low Regrets Technologies

These are technological solutions where cost uncertainty is low and there is cost certainty of the cost of installation and running. These technologies should also be employed in buildings where they are unlikely to be superseded by more economical solutions before the end of their lifecycles, for example ground source heat pumps in a building that may be able to connect to a heat network in the future.

No and Low Regrets Strategic Technologies



The infographic is titled "No and Low Regrets Strategic Technologies" and is set against a light blue background. It contains four rows, each with an icon on the left and a text block on the right. 1. The first row features a green house icon with a white outline. The text describes prioritizing energy efficiency measures like insulation in all buildings. 2. The second row shows a house icon with a heat pump symbol and arrows indicating energy flow. The text discusses deploying individual heat pumps in buildings not on the gas network. 3. The third row shows a house icon with a gas meter, a red 'X' over a clock, and a green checkmark over a heat pump icon. The text explains selective deployment of heat pumps in buildings where they are cost-effective and mains hydrogen is not available. 4. The fourth row shows a network of pipes connecting multiple buildings. The text describes the development of low and zero emissions heat networks like district heating.

We will continue to prioritise action on energy efficiency. To deliver regulations to support the installation of cost-effective energy efficiency first improvements in all buildings (e.g. roof, windows, wall and floor insulation); both the retrofit of existing buildings and increased energy performance of new buildings.

Deployment of individual building heat pumps in buildings off the gas network which currently use high carbon heating fuels.

Deployment of heat pumps in certain buildings currently using mains gas particularly in buildings for which initial assessments suggest heat pumps are likely to be cost effective in the short-term and areas least likely to receive a mains hydrogen supply in the future.

The development of low and zero emissions heat networks (district heating and communal heating systems) in areas deemed suitable.

Source: Scottish Government Heat in Buildings Strategy

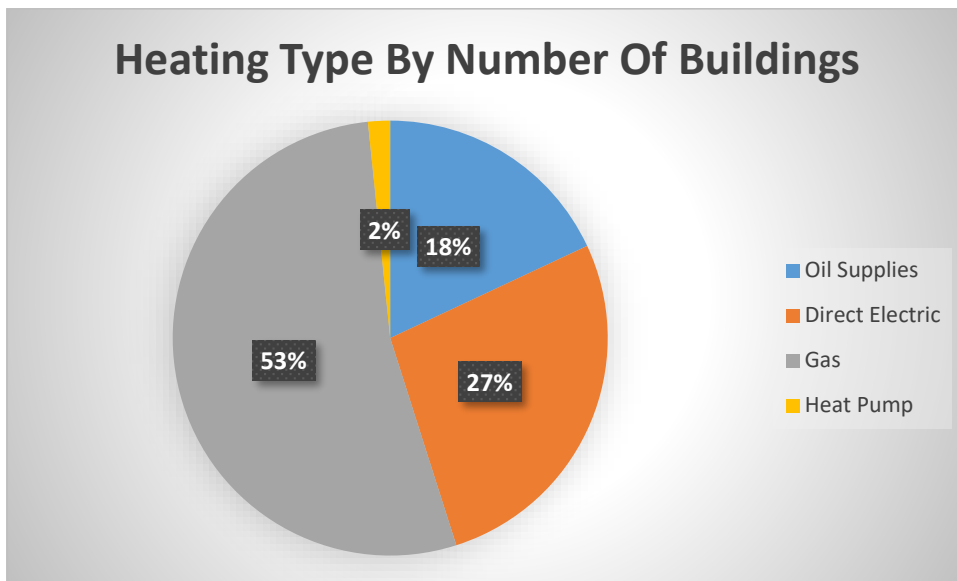
Heat in Buildings

In order to meet the council's net zero target 2030 our non-domestic building stock must significantly reduce its energy consumption, and almost all must be using a

zero emissions heating system. What is meant by this are heating systems such as, individual electric heat pumps and connection to heat networks, or electric systems such as storage heaters, and systems that have very low emissions such as those that use hydrogen.

Bioenergy, for example in the form of biomass, bio-heating oil, bio-propane, where they come from sustainable sources, are included as low emissions systems, but likely to have a more limited role.

The vast majority of our buildings use mains gas as their primary heating fuel. Followed by direct electric and oil.



One kWh of electricity is currently more expensive than one kWh of gas by a factor of about 4-5. The higher efficiency of a heat pump means the amount of energy needed can be less than a third the amount of energy needed by an oil or gas boiler, or direct electric heating to produce an equivalent amount of heat. This means that for some properties, heat pumps can help reduce bills where they are replacing older, more inefficient heating systems, or where they are combined with upgrades to the efficiency of the building's fabric. Increasingly there is also the option to deploy heat pumps alongside other measures such as solar PV or battery storage to help further reduce electricity bills.

However, when a heat pump replaces a modern, efficient gas boiler, the greater efficiency of the heat pump will be insufficient to offset the higher cost of electricity.

For this reason heat pump projects should be prioritised in the off gas grid properties. For properties where direct electric heating is used and savings can be demonstrated. Then properties on gas grid will be considered with a view to moving towards heat pumps or district heating where it is likely to be available once identified through the Local Heat and Energy Efficiency Strategy.

Monitoring and Review

This policy and strategy will be reviewed annually by the Energy Officer and revisions reported to Committee for approval.