Business Intelligence Insights (Vol 2) April 23

Welcome back to Business Intelligence Insights.

Business Intelligence Insights can be used to equip Scotland Excel, local authorities, and stakeholders in their day to-day work, and to inform their long-term strategies and objectives. Each Insight will examine a selected topic in depth, provide intelligence and propose questions about its potential implications on a national, local, stakeholder and organisational level. The focus for this insight is ***The Cost of Energy.*** Please explore the **links** provided to find further information.

As explored in the previous report, Business Intelligence involves the transformation of data into valuable insights that describe our business environment. Creating Business Intelligence involves accessing and building an understanding of data to create insights that can be used to inform decisions. The sharing of these insights internally and with customers can support us to be proactive to changes to our working environment and inform our own work.

The Cost of Energy

The cost-of-living crisis and rising energy prices have and will continue to impact our personal and professional lives. Opportunities to reduce the financial costs of energy can highlight opportunities to improve the efficiency of energy too. As we look to reduce and manage our energy costs, reducing the emissions of buildings can play a big role in achieving the objective set by the Scottish Government of reaching Net Zero emissions by 2045.

Local authorities and public health boards will be affected differently by high energy prices. In the provision and procurement of goods and services, it is fundamental to meet both financial and environmental needs.

This Insight will look in particular at the rising cost of energy in the UK, raise questions and asks the reader to consider the short and long-term impacts of the rising costs of energy on their work, and how we can use this information to better support members and suppliers. We must consider how we can support customers to reduce and manage their energy consumption.

With transforming habits and demographics, how has the demand for energy changed?

What role do our homes and public buildings play in emission production in Scotland?

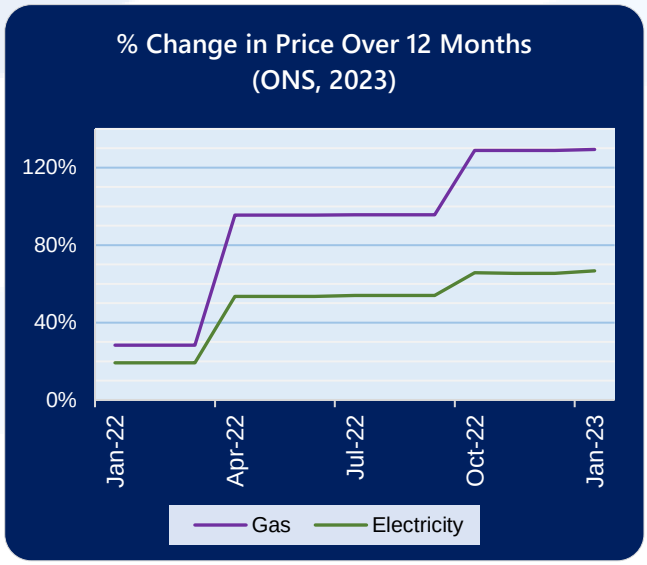
How are energy costs distributed across Scotland?

How is the cost of energy shifting?

The average household energy bill increased by **74% from 2021 to 2022** – an increase of **£1,333,** prompting **56%** of people to reduce fuel usage in their homes.

The cost of gas has increased by **129.4%** over the 12 months from January 2022 to 2023. The average gas bill increased by **95%** to **£1,097** in 2022, from **£564** in 2021.

The cost of electricity has increased by **66.7%** over the 12 months from January 2022 to 2023. The average electricity bill increased by **59%** to **£1,219** in 2022, from **£769** in 2021.



Alongside Office of National Statistics data, this Insight has been developed using the Energy Performance Certificate (EPC) data of **domestic** and **non-domestic** properties in Scotland, published by The Energy Saving Trust and Scottish Government. This Insight uses the EPC data of **138,505** domestic properties and **56,030** non-domestic buildings. To find the EPC information for your home, search the **Energy Saving Trust database.**

How do energy prices impact the public sector?

Energy prices determine the cost of running properties and may influence energy consumption habits. High energy costs are likely to result in attempts to reduce energy consumption, may increase the demand for smaller properties that consume less energy, and increase the demand for more efficient properties, practices and appliances.

Socio-economic factors contribute to energy costs and consumption. Public habits have transformed over recent years – working from home and online education have become common worldwide. Although these flexible working arrangements can reduce travel emissions, both homes and workplaces must be equipped to heat and support workforces. Working at home may cause an increase in the demand for energy at home for employees, whilst offices are consuming energy too.

As explored in the previous insight, demographic factors will impact the public sector too. By improving the energy performance of hospitals and care home buildings, their annual emissions could be cut by **23%.** However, the retired population is expected to grow by **9.5% in 5 years** – an increase of **103,000 people**. With an increased population of elderly people, the demand for heating and cooling systems, medical equipment and public transport is likely to increase.

Improving the energy efficiency of schools could reduce their annual emissions by **35%.** Additionally, the population of children in Scotland is expected to decrease by **8%** in 5 years – a reduction of **68,978**. Less children, combined with high energy costs and **record levels** of food inflation, suggests that the cost of providing per pupil will increase. With the readiness of online resource, would it be more cost and energy efficiency to move towards an online learning model?

How can the public sector manage the demand for services whilst reducing energy costs?

How will the demand for public facilities and housing requirements transform?

Scotland has varying standards for **social, privately rented and privately owned properties.** Social housing currently performs more efficiently than privately owned or rented properties. On average, savings of up to **£935** over 3 years could be made per privately rented property, compared to **£392** for social housing. Further, **thousands** of private properties are not expected to comply with Scottish Government **energy standards** for occupation. Could poor performing properties play a role in mitigating other social issues? For example, by providing accommodation to homeless people.

How can we support private homeowners to meet Scottish Government Standards?

Properties in rural areas are often larger, harder to heat, and **less energy efficient** than those in cities. Rural homes are more likely to be described as **fuel poor**. In areas such as Orkney, the Western Isles and Highland the cost of providing energy to buildings is comparatively high **per property**. Support is required to bring costs per property down to a manageable level for these residents.

Similarly, the rising energy prices are likely to hit small businesses disproportionately, with **73%** of small businesses concerned about their energy bills, and **54%** trying to reduce their energy consumption.

The opportunity to make the most impactful reduction to **total energy costs and emissions** exists in densely populated areas such as cities. By focussing our efforts on improving energy efficiency in highly populated areas, the energy performance and cost gap between cities and rural areas may increase further, putting individuals in financial and fuel poverty.

How can we reduce total costs whilst maintaining support to island and rural communities?

How can we support members to navigate these price increases?

This Insight encourages the reader to ask questions and consider the impact on our lives, work, the public sector, and society. As energy prices contribute to the cost of goods and services within public sector supply chains, support is required to help both customers and suppliers navigate the high costs. Some suggested areas to consider include:

- The development of new or renewal of current frameworks, and public services.
- The demand for and spend on frameworks such as **Energy Efficiency Contractors**, **New Build Residential Construction** and the upcoming **Property Maintenance and Refurbishment**.
- The role of energy in the pricing and supply of goods and services within our portfolio.
- The impact of consumer habits and flexible working on energy consumption patterns.

What measures can we take as individuals, an organisation, and the public sector?

What role can the public sector play in reducing the cost of energy?

Reducing energy costs is an important objective for the public sector. Scotland's electricity supply is decarbonising as more sources of renewable energy are connected to the electricity grid. The use of renewable heating sources such as biogas and biomass, which have a comparatively low environmental impact per property, can reduce the cost and improve the efficiency of energy in Scotland.

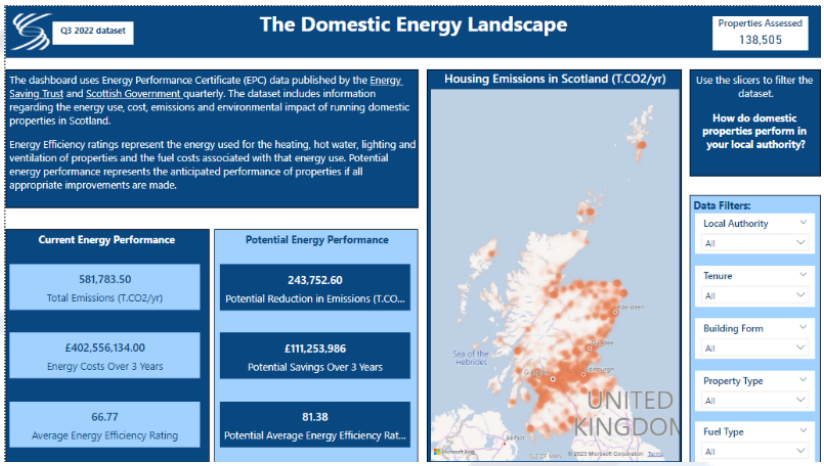
Buildings in Scotland will undergo **significant changes** to meet the Scottish Government objective of achieving **Net Zero by 2045**. By 2032, low carbon technology will be used to supply **70%** of heat and cooling systems in **non-domestic buildings** and **35%** of heat for **domestic buildings**. These improvements will drive a **20%** reduction in the demand for heat in non-domestic buildings, and **15%** for domestic buildings.

Opportunities for new jobs and upskilling workforces, such as in the installation of low-carbon heating, can both boost employment and improve energy efficiency. By implementing sustainable construction practices, we can alleviate the impact of construction on the environment, whilst increasing efficiency and reducing costs. For example, **offsite manufacturing** has been **implemented** to deliver Net-Zero Homes in Scotland.

The measures taken by the public sector to reduce both energy costs and emissions must be maintained and developed over time to minimise our long-term environmental impact.

Energy in Scottish Buildings Dashboards

To complement this Insight, Scotland Excel have developed two ***Energy in Scottish Buildings*** dashboards. These dashboards are currently available internally and will be presented in due course. The dashboards can be used to explore opportunities are there to improve energy efficiency by location, property type and tenure.



Resource Hub

This section will signpost insightful resources that have been released recently.

- **NHS in Scotland 2022** – Audit Scotland, Feb 2023
- **Scottish Local Government Finance Statistics 2021-22**, Scottish Government, Feb 2023
- **The Funding of Local Government in Scotland**, 2023-24 – Scottish Government, Mar 2023
- **Spring Budget 2023: What does it mean for UK Industries?** – IBISWorld, Mar 2023
- **How the Scottish Government is set up to deliver climate change goals** – Audit Scotland, April 2023

Do you have questions or feedback?

Thank you for your feedback on the previous Insight on **The Changing Demographics of the Scottish Population**. We would be interested to hear your views on Business Intelligence, questions and issues raised, or suggestions for topics to explore – please contact **Hannah.Wood@Scotland-Excel.org.uk**.