



Property Energy Strategy 2019 - 2030





I am delighted to introduce Antrim and Newtownabbey Borough Council's first Energy Management Strategy that will guide the Council's future strategic management decisions in relation to energy usage and incorporate water usage, and also inform the more detailed energy and water management approaches of individual Council services.

The document will be supported by an Action Plan to deliver on the aims of the strategy for the next three years which includes proposed measures that will allow the Council to manage its use of energy, water and emission of CO₂ emissions more effectively.

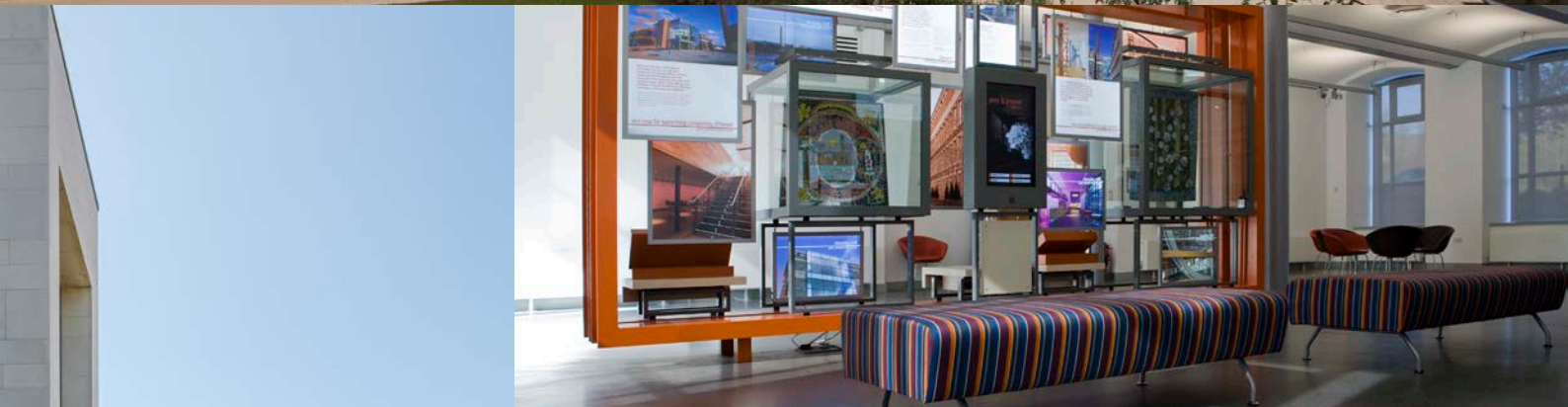
The need for efficiencies in the public sector is synonymous, in many people's minds, with cuts in services. That need not always be the case. This strategy suggests that by improving our energy and water management, investing in key energy and water management solutions the Council will be able to save money whilst at the same time improving service delivery. This will protect, indeed improve, key services.

Antrim and Newtownabbey Borough Council has long recognised the importance of effective energy management for both economic and environmental objectives. This Energy Management Strategy is an important document, and I hope it will be read widely by Members and Officers of the Council, and by our sector partners.

JACQUI DIXON BSC MBA

Chief Executive

Antrim and Newtownabbey Borough Council



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INTRODUCTION

The Energy management vision – our vision is to have efficient and effective management and usage of the Council’s energy and water resources to support the delivery of the Council’s services across Antrim and Newtownabbey Borough reflecting the Council’s Corporate and Community plans.

Antrim and Newtownabbey’s Energy Management Strategy sets the framework for how we will manage the energy and water resources of the Council effectively over the next 12 years. It will support the Property Asset Strategy in its objective of reducing running costs, lower carbon emissions and reductions in energy usage.

It will guide our future strategic energy and water management decisions to ensure we manage our property portfolio sustainably and efficiently to support the frontline delivery of the Council’s services.

The strategy will guide the energy and water management activities for the Council’s assets on a long term basis from 2019-2030 to reflect the Council’s Love Living Here Community plan and its’ Corporate Plan.

The Strategy is a long-term plan for developing and managing the energy and water resources effectively in order to facilitate the organisation’s overarching strategy and business needs. It sets out in broad terms the vision, aims and outcomes for property energy management over the period of the strategy.

In a climate of economic austerity delivering an effective energy and water management strategy will be a key challenge. Flexibility within the strategy will be essential to meet the changing needs of our citizens for the life of this strategy. The strategy will remain in place until 2030, while the 3 year action plan will be reviewed annually.

Context

In 2017/18 Council spent just over £1.76M on procurement of energy and water for our 332 property assets. Our energy usage resulted in the emission of just under 6000 tonnes of greenhouse gasses. Currently Council spends in the region of £25/m² on both energy and water, based on the Council’s asset floor area of approximately 70,000m². The highest energy users within the Council are the Leisure centres, Civic Office Buildings, Culture and Arts Buildings and Operational Services depots.

As the Council spends in excess of £1.76M annually on energy, a strategy which considers its important impact on the social, economic, environmental wellbeing of the Antrim and Newtownabbey Borough is essential. In our economy, the majority of energy that we use is ultimately sourced from oil and the worldwide long term predictions are that oil prices are likely to increase. This will have a serious and immediate impact on the price of electricity, heating oil, gas with typical price rises predicted in further years and therefore on the operation costs of the Council. In the interests of providing sound financial planning for the short and medium term, the Council must manage both how it procures its energy and how it uses energy at its assets. Reducing the Council’s impact on the environment by being more efficient with energy and water consumption reflects the commitment in the corporate plan to be a place where we protect and enhance where possible our natural habitats and built heritage.

One of the main by-products of oil based energy production is carbon dioxide (CO₂). The vast majority of scientists are of the opinion that CO₂ is a greenhouse gas and one of the main contributors to the phenomenon of global warming. Global warming has the potential to seriously disrupt our way of life in the mid to long-term future. Predictions include drier summers, wetter winters, increased storms

and storm damage including flooding, which will ultimately impact on how the citizens of the Council. There is evidence that unsustainable energy use can also have deleterious effects on health through the effect emissions have on air quality and its impact on respiratory diseases such as asthma and other respiratory disorders.

Global Agreements, Local Targets

The Council needs to ensure it meets its obligations in relation to greenhouse gas emissions as required by the government. Governments and International Organisations have recognised the likely threats of unsustainable consumption and have sought to agree ways forward to limit the production of CO₂ and other 'greenhouse' gases.²

The Climate Change Act 2008 is UK legislation that extends to Northern Ireland with the consent of the Northern Ireland Executive and Assembly. It sets a long-term framework for the UK to reduce its Green House Gas (GHG) emissions including:

- A legal framework to reduce emissions by at least 80% below 1990 levels by 2050 and by at least 34% in the period 2018-2022;
- Compliance with a system of five-year carbon budgets, set up to 15 years in advance, to deliver the emission reductions required to achieve the 2018-2022 and 2050 targets; and
- The setting up of a Committee on Climate Change (CCC) to advise government on the level of the carbon budgets and how they might be met and report annually on progress.

The first three UK carbon budgets, covering the period 2008 to 2022, were set in law in May 2009 following approval by Parliament. The budgets require a 22% reduction in UK emissions below 1990 levels in 2008-12, a 28% reduction in 2013-17 and a 34% reduction in 2018-2022. The Climate Change Act 2008 placed a duty on the NI Executive to lay

an adaptation programme before the NI Assembly. The current programme (2019 – 2024), is currently in development and due to be published in January 2019. The Council has a critical role to play for their own assets but also to assist in developing local resilience through emergency planning, local development planning and community planning.

In addition, the United Kingdom along with 174 other countries is a signatory to the 2015 Paris Agreement. Governments have agreed a long-term goal of keeping the increase in global average temperatures to well below 2°C above pre-industrial levels, and are legally bound to "pursue domestic mitigation measures".

The Council is externally audited annually under ISO14001 for environmental management. The standard demonstrates the Council's commitment to meeting the requirements of environmental legislation and regulations, preventing pollution and striving for continued improvement with regard to environmental performance. The responsible management of energy and water resources is a key aspect of meeting compliance.

Managing the energy intensity of our buildings is critical to the effective management of Council's energy resources. The Council collects data allowing analysis of usage levels which helps reduce operating costs to protect front line services and to meet our public commitments to reduce greenhouse gas emissions.

This Energy strategy and the associated action plan identifies the key approaches required to enable Antrim and Newtownabbey Borough Council to play its part in meeting national and local targets in relation to Carbon reduction and energy usage. The strategy will be reviewed and revised in line with any relevant new Global agreements and or Local Targets.

¹70,000m² refers only to Council's building stock. Amenity lighting, car park lighting, water features etc. all use energy and/or water and are over and above this area. However, these figures are included in the £25/m² figure in order to give a point of reference.

² carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulphur hexafluoride

Interdependences

Promoting better energy efficiency and lower overall usage is a 'whole' Council approach balancing the demand for social and economic development with energy efficiency and environmental awareness.

The Council needs to consider the energy requirements of any future proposals to ensure the full impact can be assessed and fully informed decisions made, based on objective criteria. In selecting capital projects, the likely energy savings and return on investment must be part of the project and design selection matrix. The Council will proceed with investments in energy and water efficiency measures even when the payback period is the same as the estimated useful life of the asset. In this way the Councils can reduce CO₂ emissions and/or energy consumption, while at the same time ensuring efficient use of public finances. Consideration must be given to not only meeting the minimum energy standards as detailed within the current Building Regulations but of exceeding them.

The Council will factor in energy and water efficiency considerations as part of its capital development and maintenance programme and will prioritise them in terms of return on investment. This is one of the few areas of Capital investment that can realistically expect to pay for itself in the short to medium term.

Consideration must also be given to including:

- The purchasing of the most energy and water efficient equipment possible
- Maintenance of this equipment
- The consideration of renewable energy systems wherever feasible
- The potential to incorporate the use of grey water systems
- In selecting the design of a building the likely energy and water use of the design must be

specifically calculated and assessed as part of the design selection matrix.

The Energy strategy will integrate and be a key document within the Council's Environmental Management system, which is externally audited under ISO14001 annually.

Aims of the strategy are to:

- Establish a clear strategic direction and priorities base on the following,
 - a) reduce the need for energy and water
 - b) Use energy and water more efficiently
 - c) Use renewable energy
 - d) Any continuing use of fossil fuels should be clean and efficient.
- Set out the processes for delivering the strategy

Outcomes of the strategy

- A decrease in energy consumption per m² year on year based on 2017-18 energy usage data.
- Maximises the proportion of energy and water consumed to be obtained from renewable/ recycled sources by 2023
- A decrease in CO₂ emissions per m² year on year based on 2017-18 CO₂ emissions data.
- A decrease in water consumption across Council based on 2017/2018 data

Achieving the Vision

In order to achieve our vision, we will employ 2 key themes:

1. Manage our Energy and Water resources

effectively and efficiently – To innovate both through capital expenditure and good practice managing energy and water usage.

2. Protect the environment

– Through the sustainable use of environmental technologies in our property assets.

1. Managing Our Energy and Water resources Effectively and Efficiently

- a. Work closely with our Property ‘Owners’ to understand the demand and requirements;
- b. By improving the energy and water efficiency of the property assets. Targeting energy and water expenditure by reducing energy and water use and using energy and water more efficiently, in order that revenue savings are achieved to help protect frontline services;
- c. Develop a programme of Energy and Water Audits for the key Council assets to provide costed recommendations which detail the required Capital investment, the anticipated annual savings and the savings and costs over the assets lifecycle.
- d. By ensuring the capital programme prioritises the inclusion of energy and water efficient, sustainable and renewables technologies;
- e. Ensure planned preventative maintenance included sustainable energy and water solutions.
- f. By collating energy and water usage data to allow us to monitor and target, in order to identify opportunities and provide better information for decision making;

- g. By ensuring our Staff are “Energy and Water Aware” – to avoid the benefits that good design brings to a building being undermined by Staff behaviours and housekeeping. Inspiring improvement by sharing and celebrating the successes.

2. Protect the Environment

- a. By investing in energy efficient, sustainable and renewables technologies Target green investment in retained properties to maximise their efficiency and sustainability;
- b. By reducing the running costs of the portfolio by improving energy and water efficiency;
- c. By actively supporting and meeting, the targets set out in the Council’s Energy Strategy.

Implementation and review

The themes will be supported by an Energy Management Action Plan which will detail actions and be reviewed on an annual basis to ensure the strategy remains live and relevant.



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