**Glasgow City Council**

**Net Zero & Climate Progress Monitoring City Policy Committee**

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### ENERGY MANAGEMENT TEAM UPDATE

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**Purpose of Report:**

This report provides Committee an update on the formation and progress made by the Energy Management Team between September 2024 – April 2025.

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**Recommendations:**

It is recommended that Committee notes:

1. Actions to support a reduction in energy demand by Glasgow City Council.

2. Infrastructure improvements to support the delivery of the EMT aims.

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Ward No(s):            Citywide: ✓

Local member(s) advised: Yes ☐ No ☐    consulted: Yes ☐  No ☐

## 1. Introduction

1.1. The decision to establish a dedicated Energy Management Team (EMT) was made in the first quarter of 2024. The remit of the EMT is to deliver a reduction in utility consumption across the properties that make up the Glasgow City Council estate.

1.2. This represents nearly 500 properties of varied function, age and typology and includes: offices, schools, residential and day care centres, depots, car parks, crematoriums, community centres, and sports centres.

1.3. In forming a dedicated energy management team, a combination of utilising existing staff and the creation of new posts was required. As a result, the EMT began operating on September 9th 2024.

1.4. This report provides Committee with an update on the progress made by the EMT in delivering their key objectives in the period between September 2024 and April 2025.


## 2. Background

2.1. The council property estate is diverse, containing a mixture of old and new buildings which support a broad range of statutory and non-statutory services provided by the Glasgow City Council family.

2.2. The total energy demand of the estate is circa 280,500 MWh[1], reflecting an associated cost of circa £42m for the 2024-25 period[2].

2.3. The total water demand of the estate for 2024-25 was 604,828 m3, with an associated cost of circa £3.5m.

2.4. Whilst costs are subject to fluctuations within the global energy market, the council can achieve better value through more efficient energy use and reduced consumption.

2.5. A reduction in energy consumption also contributes towards the objectives of the Council's Carbon Management Plan ("CMP3")[3] and fulfil action 18 (reporting on energy use) of CMP3.


## 3. Key workstreams

3.1. Since its establishment in September 2024, the EMT has been working to clarify existing energy processes, baseline energy performance, verify the integrity of

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[1] Combined Electricity and Gas for GCC estate for Feb 24/25 period

[2] Data extracted from Inspired billing verification portal

[3] https://onlineservices.glasgow.gov.uk/councillorsandcommittees/viewSelectedDocument.asp?c=P62AFQDNN TDNZ38181

available energy data, identify issues with building fabric, and improve engagement with utility and service providers.

3.2. Several key workstreams have now emerged, as summarised below:

- Cost Reduction (CR1 – CR2) Streamline and optimise billing processes and supporting infrastructure
- Energy Monitoring (EM1 – EM2) Introduce effective monitoring to reduce demand and ensure energy policy compliance.
- Energy Infrastructure (EI1 – EI2) Drive the replacement of analogue meters to smart technology.
- Performance Improvements (PI1) Improve accuracy and availability of information to drive more efficient working.
- Energy Projects (EP1) Baseline buildings by type to identify economically viable interventions to reduce demand and decarbonise.

3.3. A detailed progress update in respect of each workstream is provided in the following sections.

## 4. Cost Reduction (CR1) invoice verification and payment process optimisation

4.1. Since September 2024, significant progress has been made to ensure that the Council is up-to-date with energy bills. The value of bills unable to be processed has reduced by 90%. This work has protected the council from the application of late payment fees by energy suppliers.

4.2. An initial review of the energy billing process has identified and resolved issues relating to ownership, tenancy, and historic disposals, ensuring the council is billed for actual energy consumption.

### Priority actions

4.3. The priority actions of this workstream include:

- Resolve historic issues related to unpaid bills and late payment fees.
- Remove redundant supplies to reduce standing charges.
- Improve the billing process to mitigate the risk of late payment charges.

## 5. Cost Reduction (CR2) Recovery and Reduction Utility Audit

5.1. The EMT is engaging with the CPU for the appointment of a forensic water audit provider. This will perform a forensic audit of historic and ongoing billing to identify possible overpayments, incorrect billing and standing charges, anomalous water consumption events, and identify potential for "Invest to Save" projects.

5.2. Market interest has been confirmed via the publication of a Prior Information Notice (PIN, Dec 2024) and the issue of a Request For Information (RFI Jan 2025) as part of the soft market engagement.

5.3. Relevant documentation has been approved and the final Scope of Works is being finalised with a view to conducting the competition imminently (July 2025).

5.4. For gas and electricity, GCC intend to partner with Glasgow Life to utilise their procurement process for this service.

**Priority Actions**

5.5. The priority actions of this workstream include:

- Progress appointment of a specialist supplier to undertake a forensic audit of utilities.

- Partner with Glasgow Life for gas and electricity forensic audits.


## 6. Energy Monitoring (EM1) High Energy/Utility Alerts

6.1. A new procedure to monitor and alert building managers to abnormal water, gas, and electricity consumption has been developed and implemented, supporting the investigation and resolution of any issues to avoid unnecessary consumption and costs.

6.2. The process for abnormal water consumption was implemented in October 2024 across all council properties. The system has alerted officers to levels of annual water loss which represent circa £900k since its introduction.

6.3. Of the water alerts raised to date, 70% have now been resolved, avoiding costs of circa £602k. The introduction of this process has identified many long-term previously undetected faults which have now been successfully resolved.

6.4. With respect to gas, an abnormal consumption alert system was implemented across several pilot schools between October - December 2024. The initial findings have been positive, showing a reduction in gas consumption when comparing October – December 2024 against October – December 2023, as highlighted in figure 1 (below).

6.5. Further analysis of gas consumption at these pilot sites has identified potential cost avoidance opportunities through an optimisation of building heating times.

6.6. With respect to the full implementation of abnormal gas and electricity consumption alerts, work is being progressed to review and upgrade meters to enable this level of reporting.
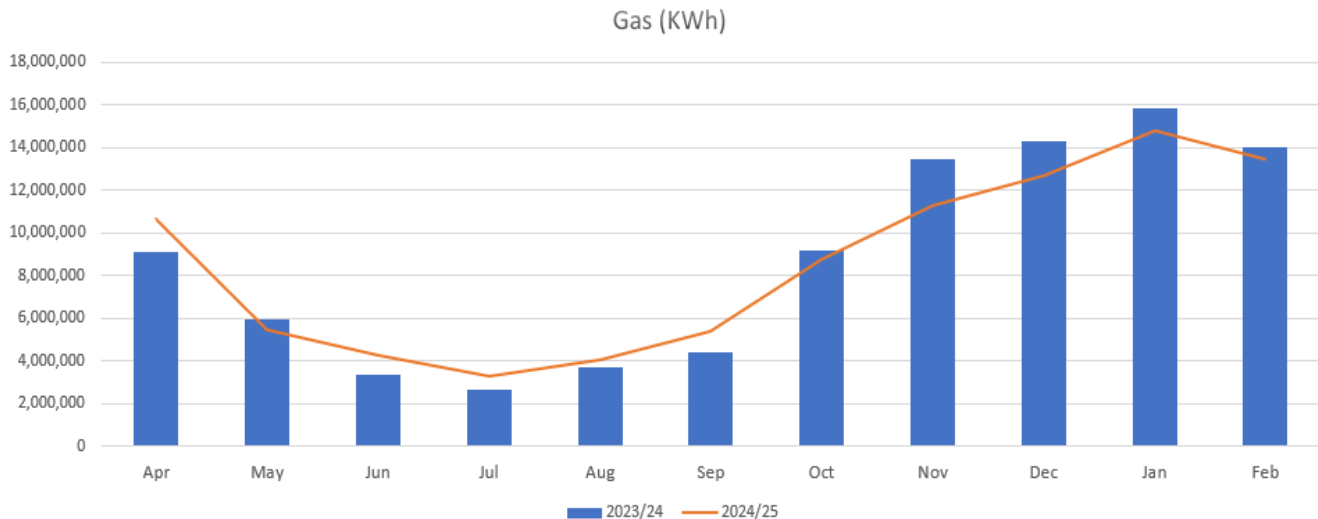
**Figure 1. Gas Consumption Comparison by years 23/24 and 24/25 for Schools Estate**

**Priority Actions**

6.7.    The priority actions of this workstream include:

- Create a baseline of current utility demand for existing sites to aid alerts and reporting and to monitor improvement against.

- Implement the alert system for abnormal energy and utility consumption.

- Develop Key Performance Indicators (KPIs) for monitoring, detection and resolution of these alerts.

## 7. Energy Monitoring (EM2) Reporting and compliance with KPIs

7.1.    By establishing KPIs for energy and utilities consumption, the council will be able to satisfy action 18 of CMP3 in respect of the reporting of energy performance to the Council's Leadership.

7.2.    The EMT is progressing with baseline energy and utility data across the property estate. This information is now being used to produce a KPI dashboard which will provide an intuitive graphical comparison of annual performance, enabling issues to be reported and addressed.

7.3.    Through the baselining of energy demand of buildings, the EMT will be able track building performance and compliance with baseline demand.

**Priority Actions**

7.4.    The priority actions of this workstream include:

- Finalise data sources to be utilised for tracking

- Finalise dashboard presentation

- Develop reporting and compliance KPIs based on SMART objectives

## 8. Energy Infrastructure (EI1) Automatic Meter Reader (AMR) Metering Programme

8.1. Contract negotiations have been concluded, and a contractor has been appointed as GCC's meter operator and data provider.

8.2. The contract will replace manual meters to provide more accurate energy invoicing, budget control and monitoring to support EM1. Meter replacement programmes have been issued by the contractor and are currently being reviewed by EMT.

### Priority Actions

8.3. The priority actions of this workstream include:

- EMT to review meter operator list against EDF and Total Energie asset lists
- Ensure all meters are correctly incorporated into contract and data is available
- Identify and plan time-sensitive locations to minimise disruption i.e. Schools programmed for holiday periods

## 9. Energy Infrastructure (EI2) Dynamic Telemetry Switching (DTS) Switch-off

9.1. DTS is a metering system used to switch electricity meters between tariffs remotely via radio signals. It is scheduled to cease operation in June 2025. The list of affected properties is currently being finalised.

9.2. This will prioritise properties operated by HSCP (believed to be the only service impacted by the change). The EMT will monitor the replacement of the DTS meters with smart technology, bringing them into alignment with the roll out to other buildings in the Council portfolio.

### Priority Actions

9.3. The priority actions of this workstream include:

- Compile list of all GCC properties impacted by the DTS switch off.
- Liaise with service areas as required to assist meter installation programme.

## 10. Performance Improvements: (PI1) Meter Location GIS Layer

10.1. Meter location data is being compiled to create a spatial dataset of our utility meters. This will allow the EMT to rapidly extract the unique reference numbers of meters related to a property.

10.2. The use of GIS will provide a method to track meter infrastructure changes, replacements, and allow physical locations to be passed to maintenance providers in order to save time when carrying out works, and reducing the dependency on local knowledge.

**Priority Actions**

10.3. The priority actions of this workstream include:

- Obtain coordinates for the location of all energy and utility meters.

- Work with the Council's Geographic Information System (GIS) team to introduce a new layer on GIS to improve how these vital assets are managed.

## 11. Energy Projects: (EP1) Heat and Energy Performance of the Property Estate

11.1. An officer has been seconded into Property Asset Management to progress several key projects. These are aimed at improving heat and energy performance and de-carbonising the supply of energy to buildings within the property estate.

11.2. Several projects have been developed and are now underway and include energy modelling across 13 locations, for example: the City Chambers Complex, including a feasibility assessment for connection to the Strathclyde University Heat Network.

11.3. This work is supported by the launch of a Gold Course on Energy Performance which will be introduced in the coming weeks and made available to all Council staff. The course promotes better personal behaviour and builds on the Council's Corporate communications issued by the EMT throughout the 2024 festive period.

**Priority Actions**

11.4. The priority actions of this workstream include:

- Feasibility study of connection of city centre buildings to Strathclyde University Heat Network

- Complete energy performance modelling of thirteen sample locations

- Launch of a Gold Course on Energy Performance

- Establishing a method to roll out energy audits across the operational estate

## 12.      Further Actions

12.1.      Several of the workstreams represent ongoing actions and long-term projects. As part of the behaviour change and awareness campaigns, options such as including schools' initiatives, information on laptop screens, require to be fully explored.

12.2.      Based on the Solar PV feasibility studies completed in 2024 by Sustainability, there is an opportunity to expand existing solar PV and develop sites that would benefit from microgeneration and incorporation of renewable technologies. This approach would assist with boiler replacement programmes, whilst improving local resilience by reducing dependency on grid supply. This action would have potential to support delivery of the CREF.

12.3.      Measures such as lighting replacement (LEDs) are already being progressed at Eastgate. Similar projects require to be developed and rolled out across the estate (where practical) to assist with a reduction in energy demand of around 50% for lighting.


## 13.      Funding Opportunities

13.1.      As part of the Energy Infrastructure (EI1 – EI2) workstream, officers have begun to explore the options available for funding of utilities type projects. For example, expressions of interest have been submitted to Scottish Government to determine whether  zero-interest loans could be secured to fund these projects through Salix Finance.

13.2.      Alternative public sector funding opportunities to reduce energy and utility costs are also being explored. This includes investigation of mechanisms that can accelerate the ability of the Council to progress projects and contribute toward achieving the goals of Net Zero and those within our Climate Plan.


## 14. Policy and Resource Implications

### Resource Implications:

| | |
|---|---|
| *Financial:* | Projects will be supported via internal funding and external sources where appropriate. |
| *Legal:* | None |
| *Personnel:* | All positions now recruited. |
| *Procurement:* | Resources have been assigned for immediate requirements. |

| **Council Strategic Plan:** | Grand Challenge Three: Fight the climate emergency in a just transition towards a net zero Glasgow.<br>Mission 2: Become a net zero carbon city by 2030<br>Fulfils delivery of CMP3 actions: |
|---|---|

**Equality and Socio-Economic Impacts:**

| *Does the proposal support the Council's Equality Outcomes 2021-25? Please specify.* | no significant impact |
|---|---|
| *What are the potential equality impacts as a result of this report?* | no significant impact |
| *Please highlight if the policy/proposal will help address socio-economic disadvantage.* | no significant impact |

**Climate Impacts:**

| *Does the proposal support any Climate Plan actions? Please specify:* | Fulfils delivery of CMP3 actions: 4, 8, 18, 22 & 27 |
|---|---|
| *What are the potential climate impacts as a result of this proposal?* | Monitoring and demand reduction will contribute to GCC CO2e reduction. |
| *Will the proposal contribute to Glasgow's net zero carbon target?* | Yes |

| **Privacy and Data Protection Impacts:**<br><br>Are there any potential data protection impacts | Yes. DPIA has been carried out on appropriate action (CR2) |
|---|---|

as a result of this report
Y/N

If Yes, please confirm that
a Data Protection Impact
Assessment (DPIA) has
been carried out

## 15. Recommendations

It is recommended that Committee notes:

1.  Actions to support a reduction in energy demand by Glasgow City Council .

2.  Infrastructure improvements to support the delivery of the EMT aims.