Item 6

13th August 2024

Glasgow City Council

Net Zero and Climate Progress Monitoring Committee

Report by Billy McFadyen, Managing Director of Corporate Operations & Compliance, SEC

Contact Billy McFadyen

UPDATE ON SCOTTISH EVENT CAMPUS NET ZERO ENERGY PLANS

Purpose of Report:

To provide Committee with an update on the latest position on the Scottish Event Campus (SEC) Net Zero energy plans.

Recommendations:

The Committee is asked to:

1) Note the contents of this report;
2) Note that this report will be updated annually.

Ward No(s):	Citywide: ✓
Local member(s) advised: Yes ☐ No ✓	consulted: Yes ☐ No ✓

1. Introduction

1.1 The SEC has ambitious expansion and modernisation plans which will increase the economic benefit and employment supported significantly. At the heart of the plan is the Net Zero Energy strategy which aims for a Net Zero position by 2030 which aligns with the Glasgow City Council target.

1.2 This report provides an update on the roadmap to date and the progress on the individual energy related elements.

2 Background

2.1 The Scottish Event Campus is one of the largest event spaces in the UK hosting over 300 events per annum and welcoming approximately 2 million visitors to the campus. As well as hosting world significant events such as COP 26, World Gymnastics and a key Commonwealth Games venue, the SEC hosts a variety of Live Entertainment events, trade and public exhibitions along with corporate meetings, national and international conferences. The Ovo Hydro is regularly a top 5 world arena, measured by paid attendees to Live Entertainment events.

2.2 The activity on the campus contributes an annual economic impact in the region of £470m supporting 6,000 jobs.

2.3 As competition grows in the markets we operate in with more competitors and new venues, a modern and expanded SEC along with the Net Zero energy strategy will provide a competitive edge, attracting more events to Glasgow, creating further economic activity and supporting further employment.

3. Our pathway to Net Zero

3.1 In December 2019, SEC measured its carbon footprint from its Scope 1, 2 and 3 emissions (the baseline year). The assessment was carried out by Doctor David Telford, Sonas Energy. The total emissions were calculated at 5,350 tonnes CO_{2e} per annum.

3.2 As well as considering generating energy from renewable resources, SEC looked at creating energy and waste savings from our existing assets and initiatives. The pathway is shown below:

Outlining our pathway to net zero 2030

4. Existing performance improvements

4.1 Post pandemic and the decommissioning of the Louisa Jordan medical facility, SEC implemented improvements to reduce energy and waste levels.

4.2 In 2022, we introduced Stack Cup, a reusable cup initiative used across all live events and now saving the campus an estimated 1 million disposable plastic cups per year which in turn has driven reductions of our scope 3 waste emissions.

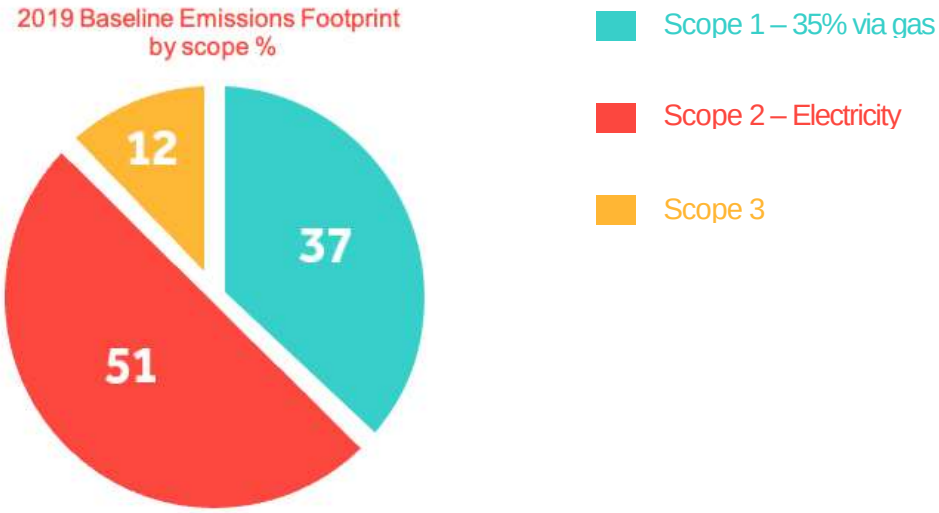
4.3 Through the introduction of Stack Cup and improved onsite waste management and segregation, we have reduced the waste we have produced by 23% against our baseline year. Through increases in recycling levels and energy recovery achieved via our partnership with the Glasgow Recycling and Renewable Energy Centre, we have achieved a 94% reduction in our scope 3 emissions from waste.

4.4 We introduced the SEC's Sustainable Food Strategy, led by our catering service provider Levy's. The strategy focuses on targets relating reducing food waste, locally sourced, plant-forward and in-season menus and strict food packaging and materials criteria.

4.5 The establishment of a Green Committee with members from across the business and partners has driven initiatives and awareness of our sustainability ambitions.

4.6 SEC has invested in energy saving technology including the installation of LED lighting across the campus.

4.7 Figure 2 below shows the initial assessment split of the main factors of our carbon footprint from electricity, gas and waste.



4.8 The carbon footprint has been measured for the years to March 2023 and 2024. The actions noted above have led to a reduction in our carbon footprint of 36% compared to the base year. The period to March 2023 witnessed a reduction of 26%, with a further 10% achieved in 2024. The information below shows the latest results.

	Footprint tonnes CO_2e/annum		
	2019 Baseline	**2022/23**	**2023/24**
GHG EMMISSIONS			
Total Scope 1 emissions	1,961	1,542	1,257
Total Scope 2 emissions	2,725	2,050	1,815
Total Scope 3 emissions	664	363	338
	5,350	**3,955**	**3,410**
Year on year reduction		**26%**	**14%**
ENERGY CONSUMPTION			
Energy consumption used to calculate above emissions (mWh)	20,862	18,566	14,396
INTENSITY RATIO			
Total sellable event space for combined campus (m^2)	32,081	32,081	32,081
Total CO_2e per sellable m^2	0.17	0.12	0.11

% SPLIT OF EMISSIONS			
Scope 1	37%	39%	37%
Scope 2	51%	52%	53%
Scope 3	12%	9%	10%
	100%	**100%**	**100%**

5. The Net Zero energy components

5.1 The Net Zero energy strategy has considered various technologies that could contribute to SEC's Net Zero ambitions. The graphic below provides an insight to the various technologies and infrastructures considered.

5.2 The achievement of Net Zero for the SEC will only be achieved with a suitable electrical infrastructure in place.

5.3 **Electrical infrastructure:** To support the hosting of COP26, SEC installed a 6.7MVa primary substation and an 11kV ring main on the west of the campus. Both of these were powered by a new supply from the Scottish Power Energy Networks (SPEN) Finnieston facility. The supply powered all temporary buildings constructed for COP26.

5.3.1 Post COP26, in conjunction with SPEN and Ofgem, a 32MVa primary substation has been installed at the SEC. This will provide the electrical backbone for SEC ambitions and the surrounding area.

5.4 **On-Site Solar and Battery Storage**: SEC is progressing with the installation of solar installations on the campus. The installations will primarily use SEC roof space supported by ground mounted solar. The installations are expected to be completed in 2025.

5.4.1 The installations will enable SEC to be powered over 100 days a year solely from on campus generated electricity.

5.4.2 The installation is expected to provide 48% of SEC's power requirements.

5.4.3 Given the SEC hosted events are not on fixed dates and can vary year by year, the installation of batteries to store any excess energy produced for nighttime hosted events and for EV charging is under consideration.

5.5 **EV charging**: Charging at SEC will have three main components: team members, clients and public. A location has been identified to host a public charging station and the consideration of suitable providers is underway.

5.5.1 The charging station will be supported by the solar installation and future battery provision would support 24hr charging from on site produced power.

5.6 **River Source Heat Facility**: Without the removal of gas from the campus, SEC will not be able to achieve its Net Zero ambitions. A comprehensive retrofit study has been conducted identifying options for gas free heating and cooling on the campus.

5.6.1 SEC is in advanced negotiations to host a River Source Heat Facility at the campus. This would decarbonise the SEC heating and cooling and remove gas from the campus which was 35% of our baseline carbon footprint. The facility would also support the decarbonisation of new build developments and retrofit of other facilities adjacent to the SEC which is included in the developers plans.

5.6.2 The installation of the facility aligns with the Local Heat and Energy Efficiency Strategy (LHEES) strategy and could be an initial node on the network. The carbon savings from the facility are estimated at over 5,000 tonnes CO2e per annum.

5.7 **Geothermal**: In conjunction with GCC, a desktop study was completed to understand the feasibility of a geothermal scheme at the SEC. The results were positive with 29GWh of power and 60GWh of heat indicated per annum.

5.7.1 As well as being a significant addition to the LHEES strategy, a geothermal scheme would significantly increase the carbon free energy generated with an estimated annual saving at over 10,000 tonnes of CO_{2e} per annum.

5.7.2 With the level of investment required, the scheme would not be progressed by SEC in isolation and would require a significant level of public or provide investment or a combination of both.

5.8 **Discounted options**: The early iteration of our energy strategy consider power from wind generation at the SEC. This was discounted based on the operation of the campus and the adjacent neighbours.

5.8.1 A study into the suitability of a hydrogen facility was undertaken and discounted due to the footprint required and cost of heat. As the Live Entertainment sector looks to decarbonise live touring, a longer-term hydrogen refuelling station will be considered should touring vehicles consider hydrogen power.

6. Conclusion

5.1 The SEC expansion and Net Zero plans are ambitious. The achievement of Net Zero would provide a competitive edge for the SEC attracting a greater number of events to Glasgow generating a significant increase in the economic contribution and employment supported.

5.2 Over a period of time, our competitors will embrace energy initiatives and the implementation of those will become the norm in the sectors we operate in and progressing on our Net Zero journey is imperative to the longer-term successful operation of SEC.

7. Policy and Resource Implications

Resource Implications:

Financial:	There are no new financial implications arising from the report.
Legal:	The report raises no new legal issues.
Personnel:	There are no personnel implications arising from this report
Procurement:	No relevant procurement issues.

Equality and Socio-Economic Impacts:

Does the proposal support the Council's Equality Outcomes 2021-25? Please specify.	Yes, the principles of emissions reduction are broadly supportive of all the Council's Equality Outcomes.
What are the potential equality	No impact from this report.

impacts as a result of this report?	
Please highlight if the policy/proposal will help address socio-economic disadvantage.	No impact from this report.

Climate Impacts:

Does the proposal support any Climate Plan actions? Please specify:	Yes. This report supports the Climate Plan ambition of attaining net zero carbon by 2030.
What are the potential climate impacts as a result of this proposal?	This report details the potential Carbon savings that can be achieved through a variety of projects utilizing the SEC campus and assets. This includes Carbon savings from projects directly led by the SEC and utilizing the SEC's assets, as well as projects in which the SEC can contribute to city-wide projects.
Will the proposal contribute to Glasgow's net zero carbon target?	Yes. This report highlights the emissions of the city and supports the Climate Plan ambition of attaining net zero carbon by 2030.
Privacy and Data Protection Impacts:	No data protection or privacy implications. This report presents analysis of publicly available data and does not represent any privacy or data protection issues.

8. Recommendations

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