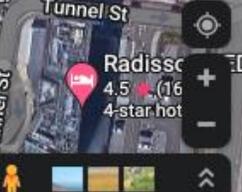


Clyde Zero

A Vision for an SEC powered Energy Hub



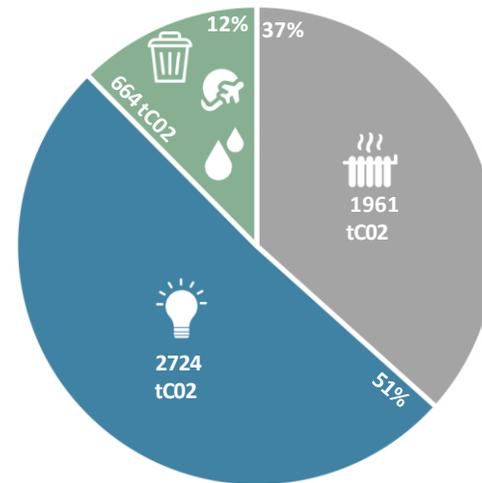
SEC Scottish
Event
Campus



Existing SEC Carbon Footprint

The total carbon footprint of the SEC campus was 5350 tonnes CO₂ eq/annum using 2019 as a baseline. Of this total, 4600 tonnes CO₂ eq (88%) is due to building energy consumptions.

2019 Baseline Carbon Footprint Assessment
Tonnes CO₂ per year

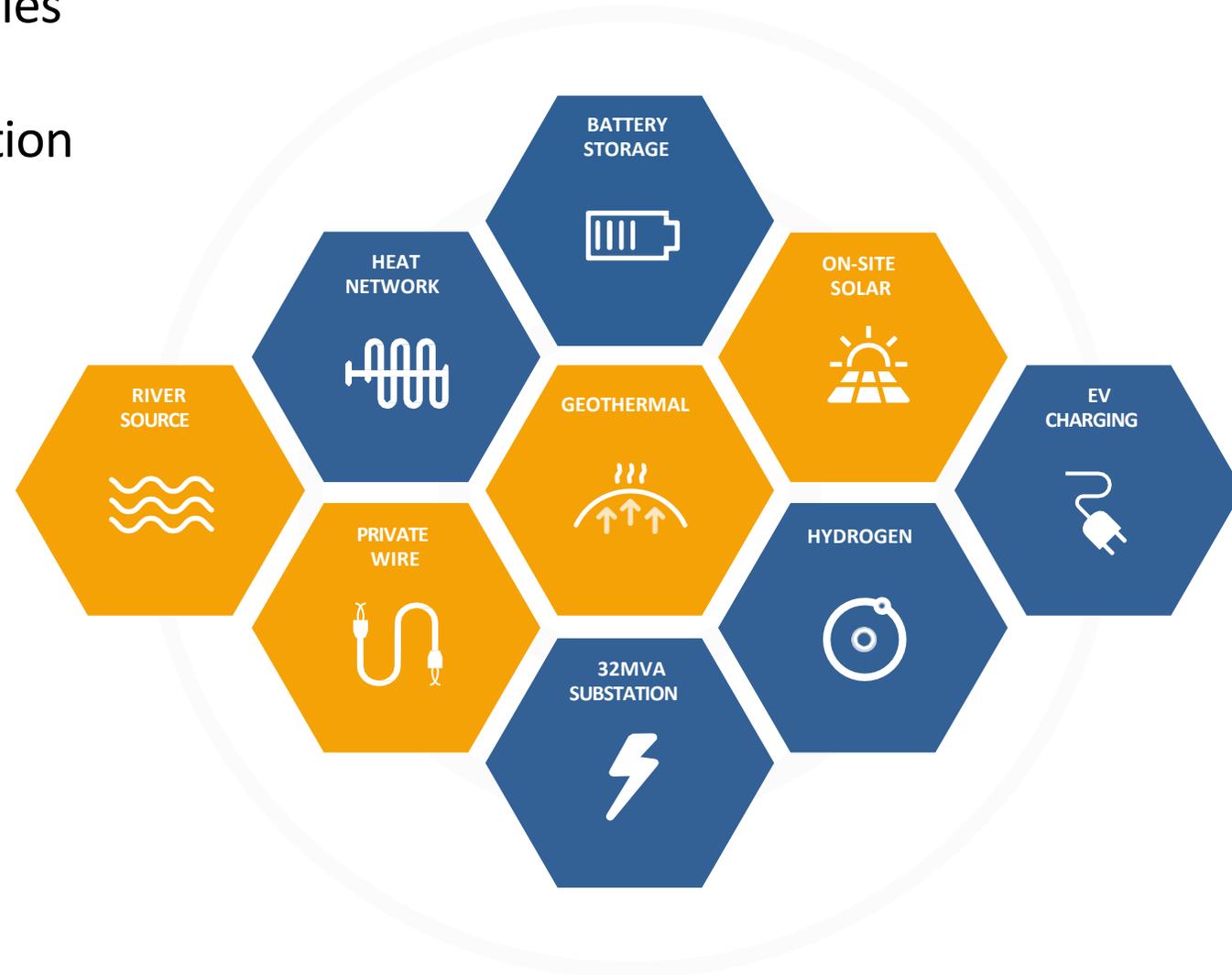


- Gas
- Electricity
- Waste, Water & Travel

2019 Baseline Carbon Footprint Total
Tonnes CO₂ per year



Renewable Technologies under consideration



Concept for Renewable Technology Locations

Based on an analysis of physical sizes, access, visibility and security we have conceptually assessed the potential locations of various green technologies on the SEC site. In addition we've considered how these technologies could support wider improvements to the site masterplan and this concept shall be developed as part of wider Campus vision.

The westernmost area of the site has historically been undeveloped with limited access to the public. This area therefore offers excellent opportunity, adjacent to the River Clyde, to carefully plan a focal point that could become new hub of renewable technology. It is not yet explored whether these technologies or the SEC would benefit from an 'interpretation' or small visitor centre, but this facility could also act as a draw to this location.

Potential Battery Storage locations could act to reinforce the edges of the Campus and improve the urban quality and safety along the waterfront walkway.

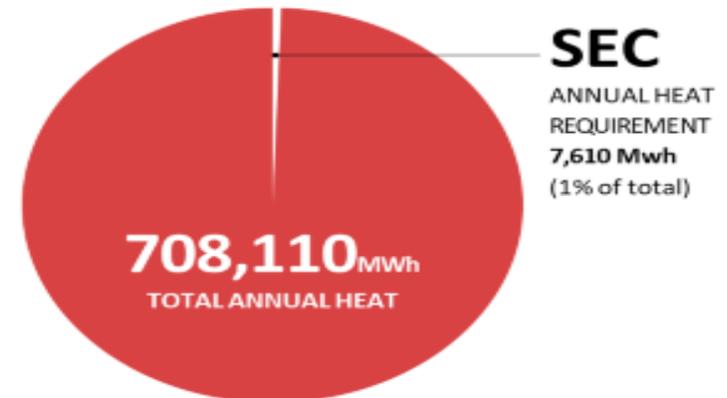
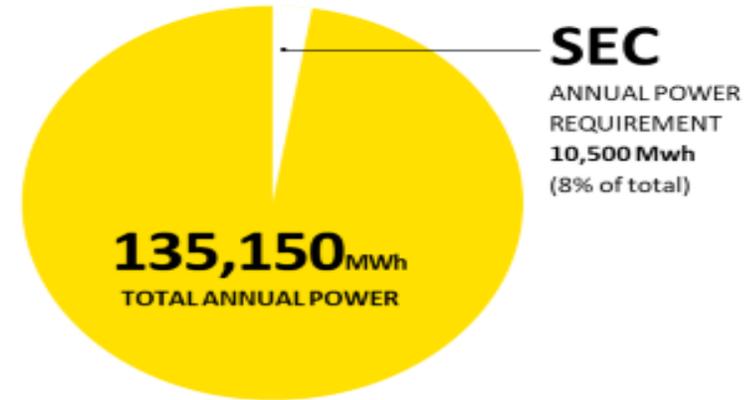
The inclusion of a visitors centre (perhaps located at the eastern 'entrance' to the site) would provide an opportunity for social inclusion and educational benefits for all ages. This would add to the SEC existing Learning Journey which collaborates with schools and colleges.



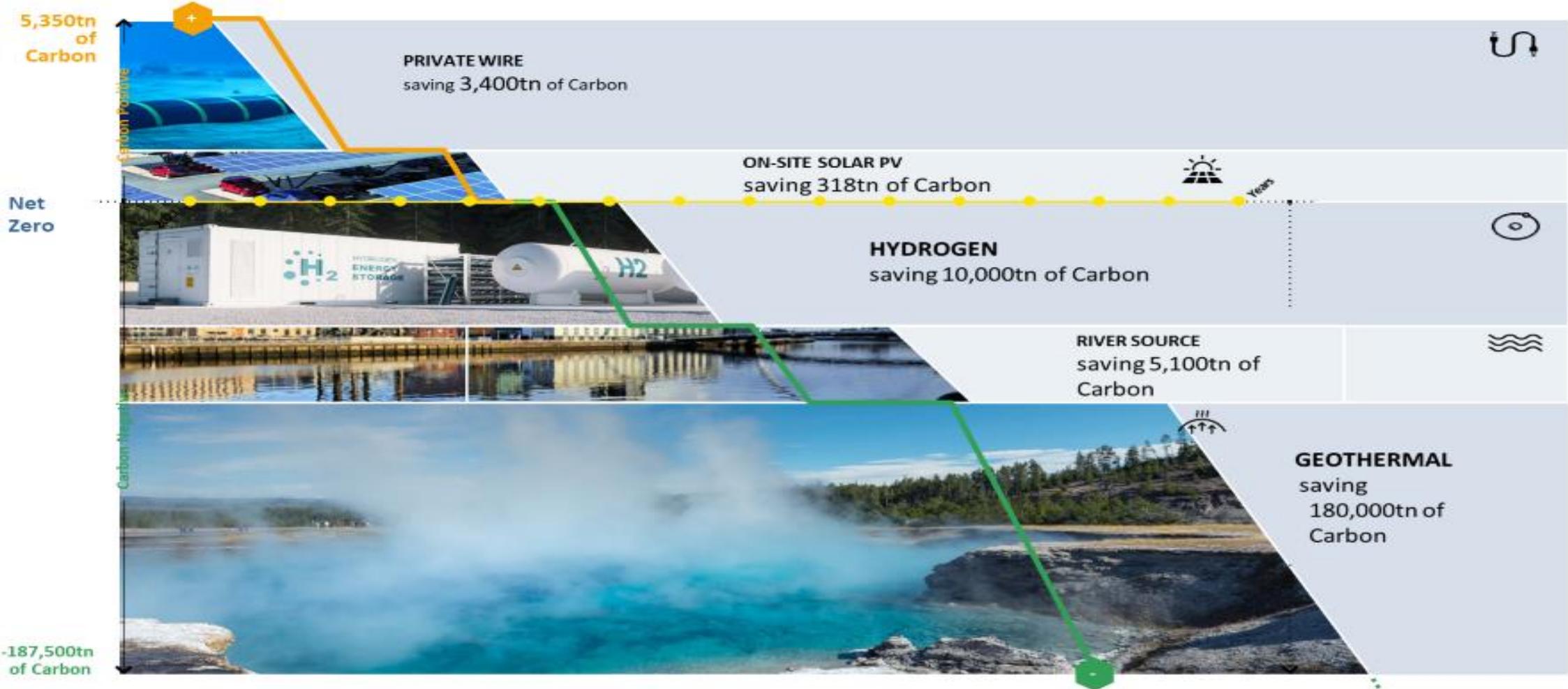
Renewable Energy Capacity

The below figures (developed by Sonas Energy) demonstrate the significant potential power and heat capacities to support a wider network of off-takers. The SEC's annual consumption of power and heat is a known quantity and when considered against the total potential of renewable energy generation has a minimal impact on what could be offered to others.

RENEWABLE ENERGY TECHNOLOGY	POWER Annual Generation (MWh)	HEAT Annual Generation (MWh)
 GEOTHERMAL	166,500	665,760
 ON-SITE SOLAR	1,500	-
 PRIVATE WIRE	16,000	-
 RIVER SOURCE	(-14,650)	38,100
 HYDROGEN	(-35,000)	3,850
 BATTERY STORAGE - Incoming	5,400	-
 BATTERY STORAGE - Outgoing	(-4,600)	400
TOTAL NET RENEWABLE GENERATION	135,150 MWh	708,110 MWh



Carbon Reductions per Annum (from Key Technologies)



Potential Large scale Heat Network & Power Distribution

