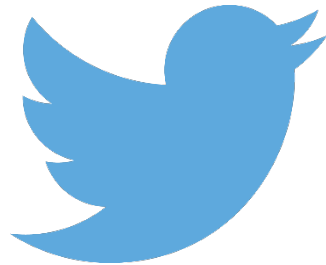


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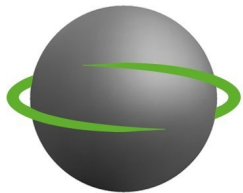


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Are your fundamentals in order? Energy and assets.

By Alan Barber

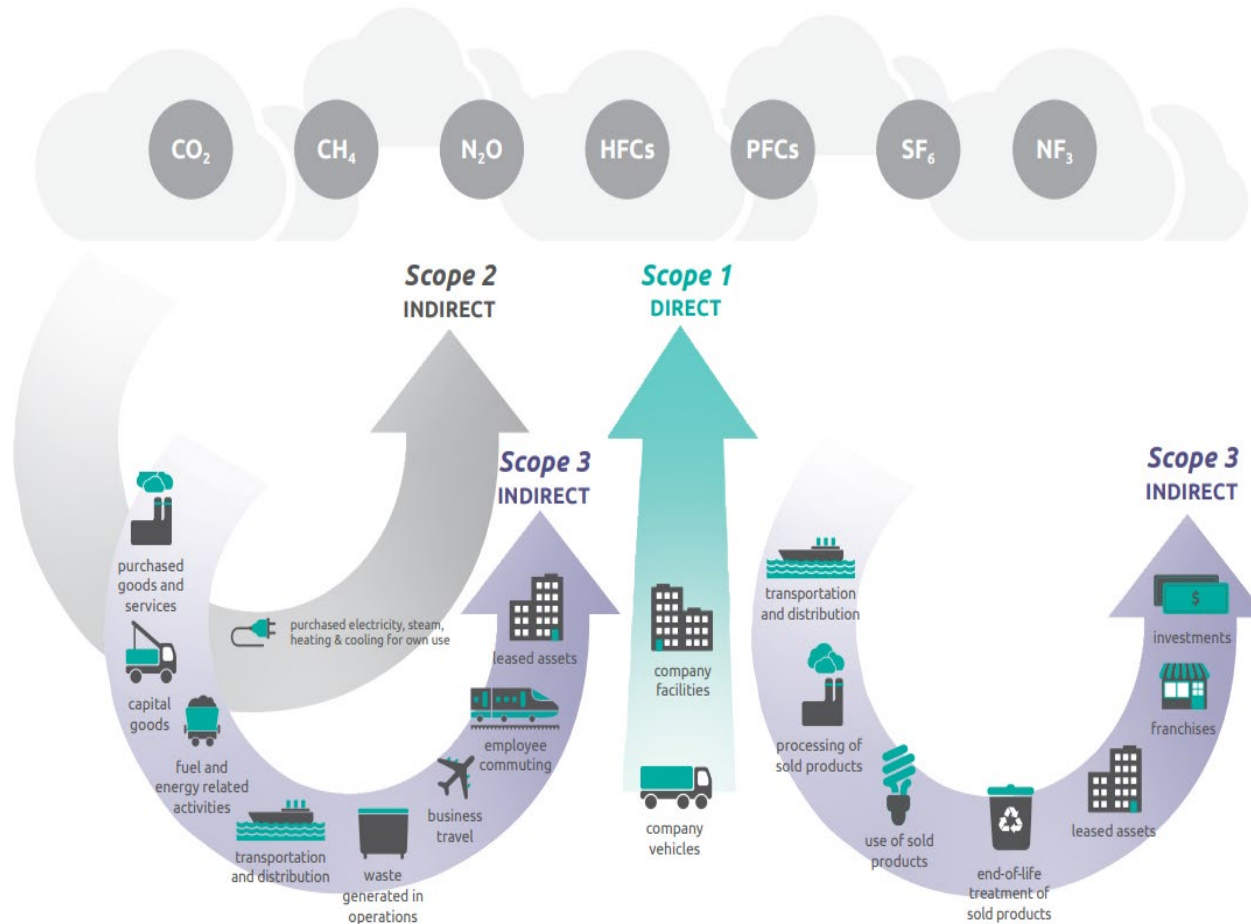
APSE Associate
& Director of Salvis



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Emissions



Scope 1 and 2 - Calculating Emissions

- Identify assets
 - kWh
 - Heat source
 - Energy expenditure
 - Floor area
- Council owned vehicles
 - Type of vehicle
 - Volume of fuel and mileage

Scope 3 - Calculating Emissions

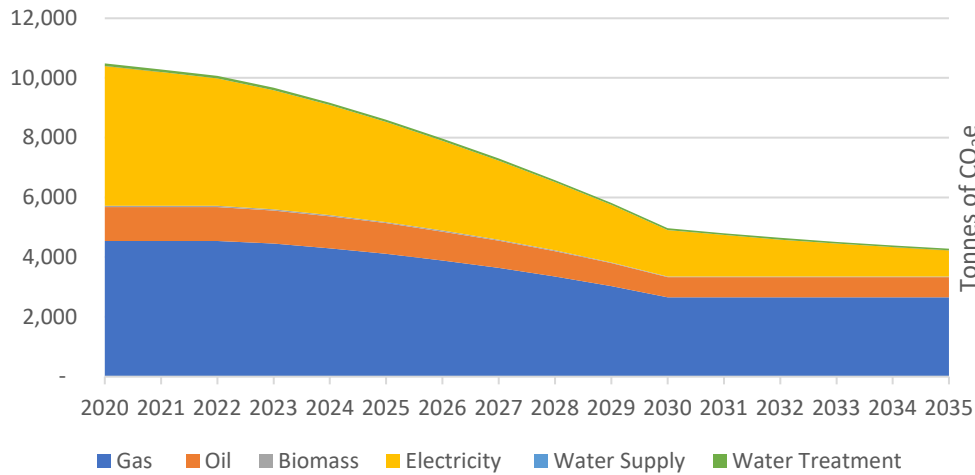
- Water supply and wastewater
- Waste
- Contractors
- Staff travel
- Leased assets
- *The supply chain*

How to get your building estate to be zero carbon

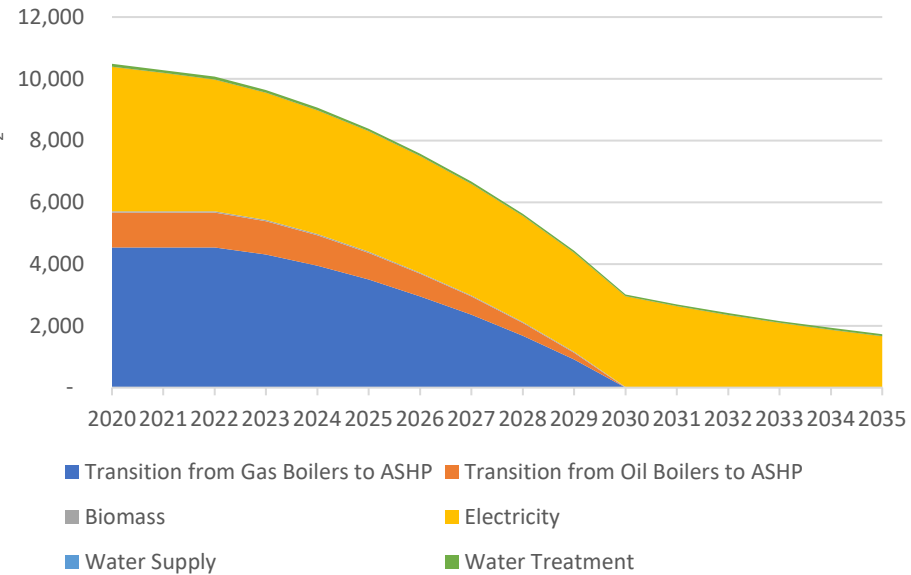
- Reduce energy usage and optimise building performance (i.e. energy efficiency)
- Generate renewable local power
- Offset

Building Estate Net Zero Trajectory

Building Energy and Water with Gas Boiler

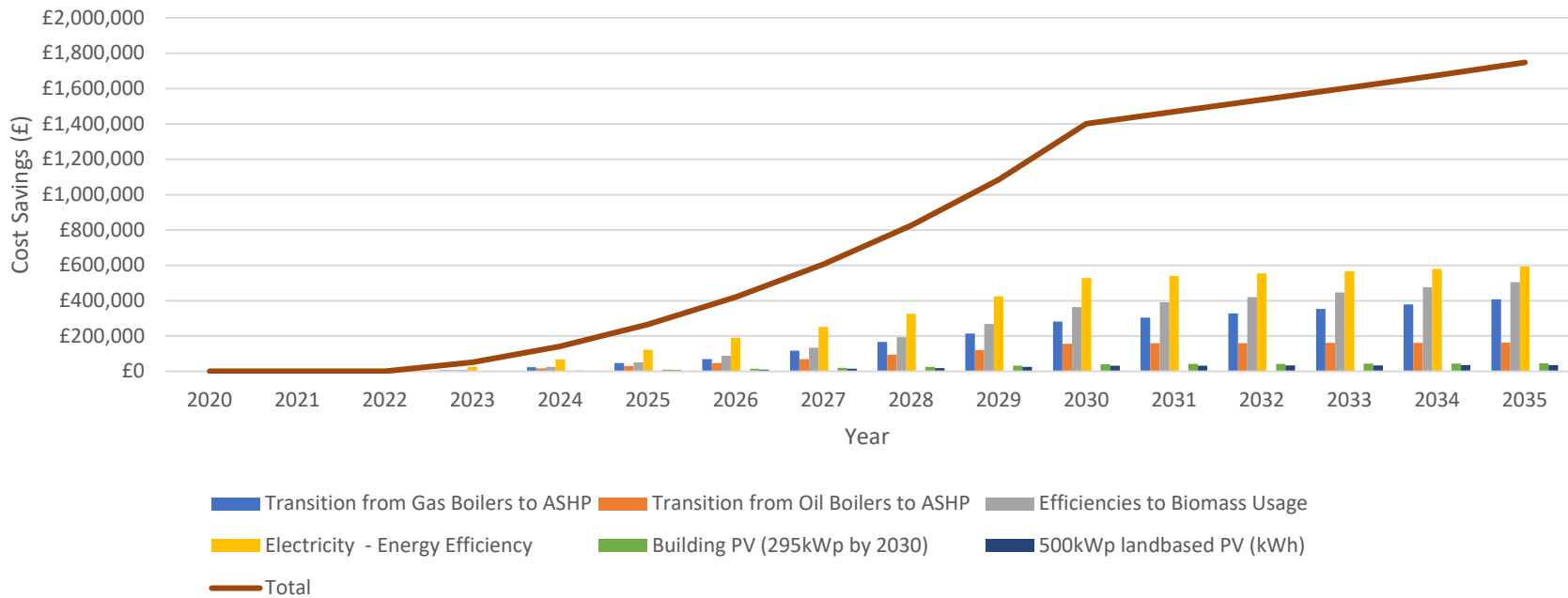


Building Energy & Water with ASHP



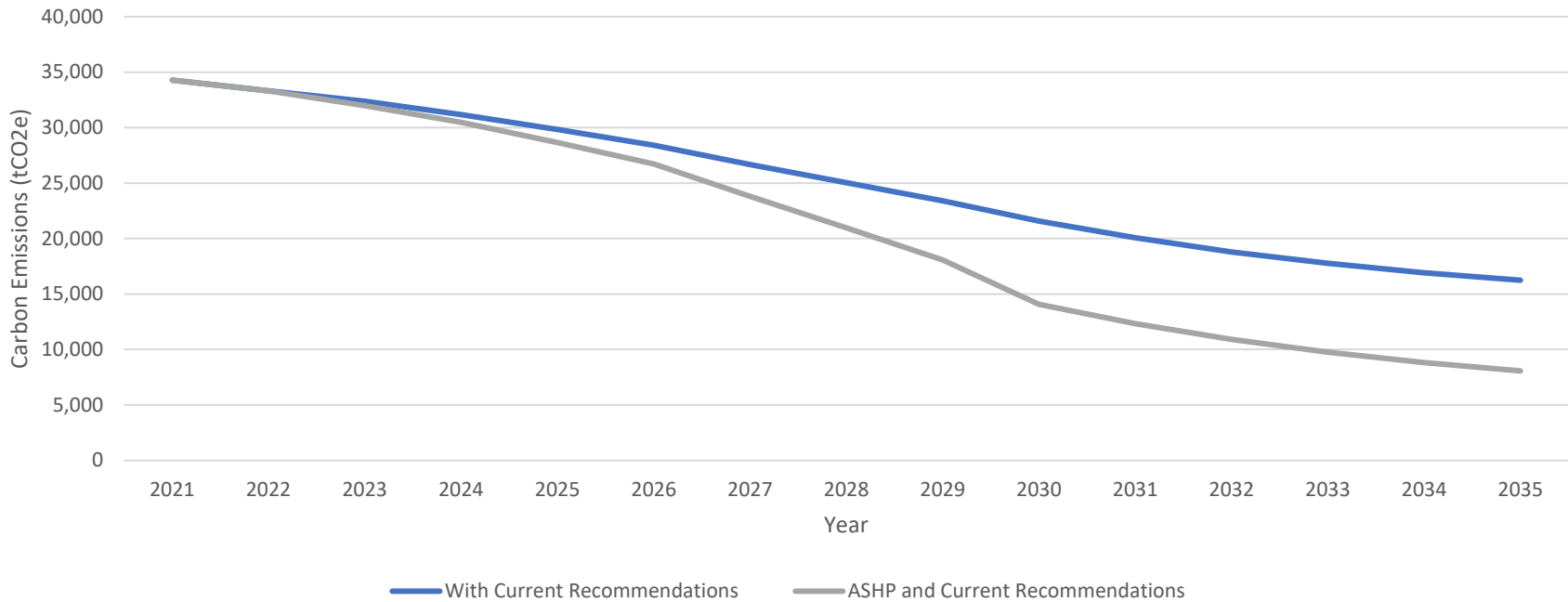
Building Estate Net Zero Trajectory

Cost Savings From Interventions

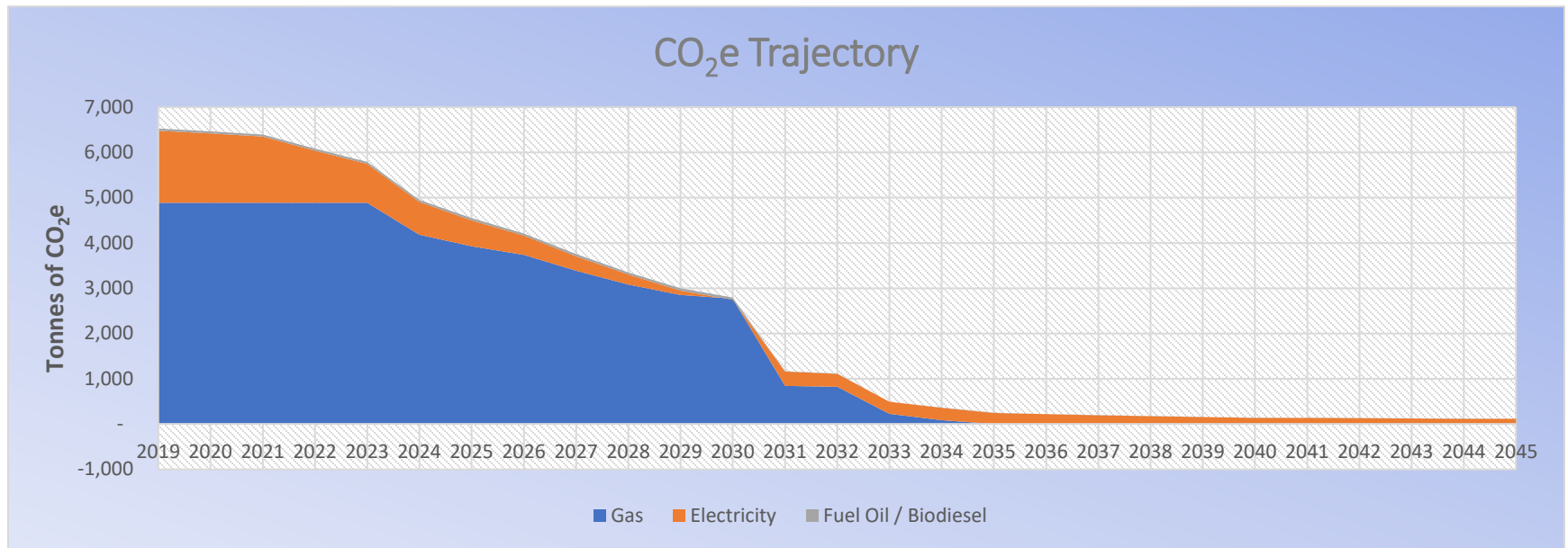


Housing Carbon Emissions

Total Carbon Emissions

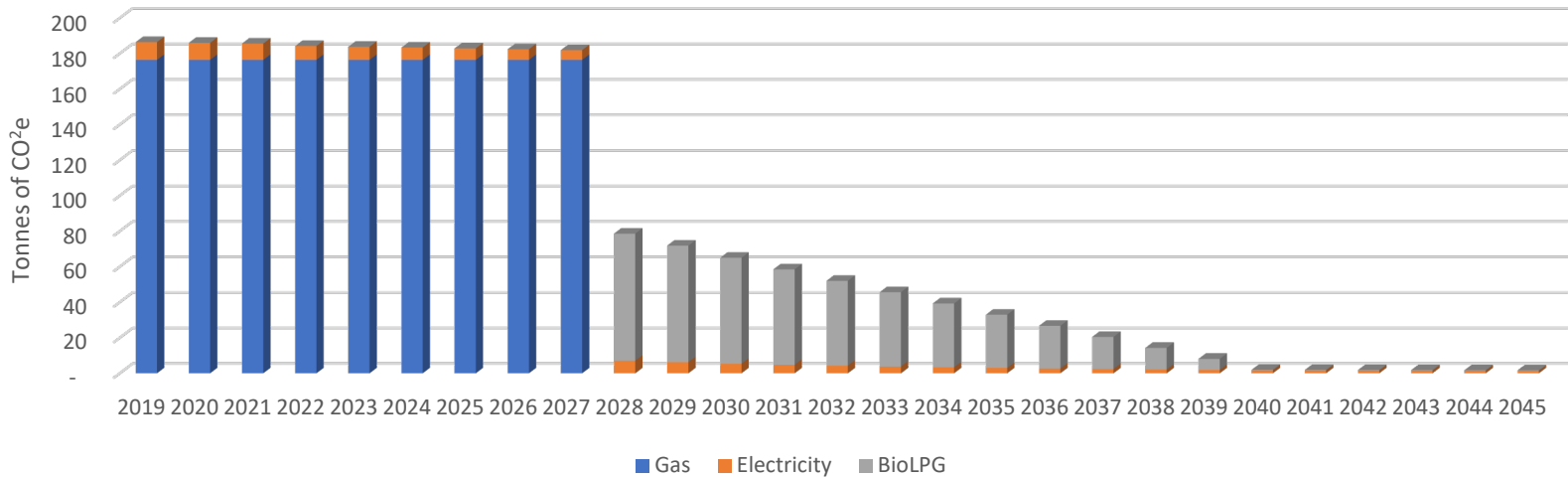


Heat Decarbonisation Plan – Hospital Estate



Heat Decarbonisation Plan – Crematorium

CO₂e Trajectory



Public Sector Low Carbon Skills Fund

- 1. Preparation of a strategic plan to decarbonise building(s) / estate
- 2. Building audit
- 3. Feasibility study
- 4. Specialist technical site survey
- 5. Detailed design
- 6. Investment grade audit
- 7. Desktop assessment

Public Sector Decarbonisation Scheme

(PSDS Phase 3)

- Technical application
- Pre and post peak heat loss and system sizing
- Like for like costs
- Age of plant
- Detailed cost breakdown
- Electrical capacity
- £325 tCO₂eLT

Prioritising projects and feasibility studies

- Analysing existing and proposed building loads
- Comparing technologies
- Maintenance requirements and cost
- Carbon savings
- Cost savings
- Funding opportunities
- Payback and ROI

Carrying Out Energy Audits

- Prepare a report that can be submitted with the PSDS application
- Include energy saving calculations
- Include a breakdown of capital cost

Challenges

- Corporate challenges
- Zero carbon heating
- Grid capacity

Contact details

Alan Barber, APSE Energy Associate

Email: alan.barber@salvisgroup.co.uk

Association for Public Service Excellence

3rd floor, Trafford House, Chester Road,
Old Trafford, Manchester M32 0RS.

telephone: 0161 772 1810

web: www.apse.org.uk



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