

The Scottish Government's
Net Zero Public Sector Buildings Standard

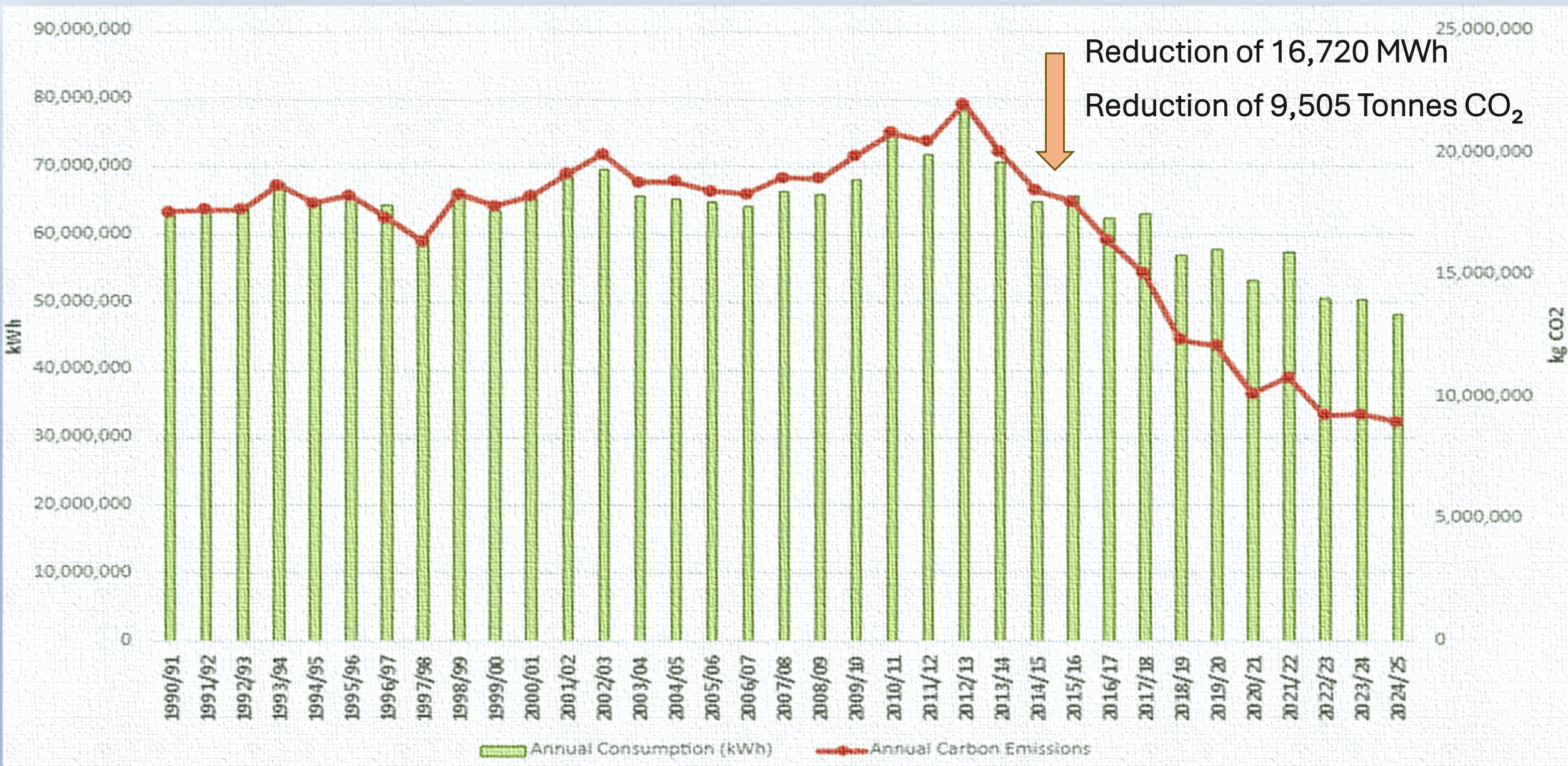
Managing Existing Buildings towards Net Zero

Chris Anton
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Perth & Kinross Council



SCOTTISH
FUTURES
TRUST



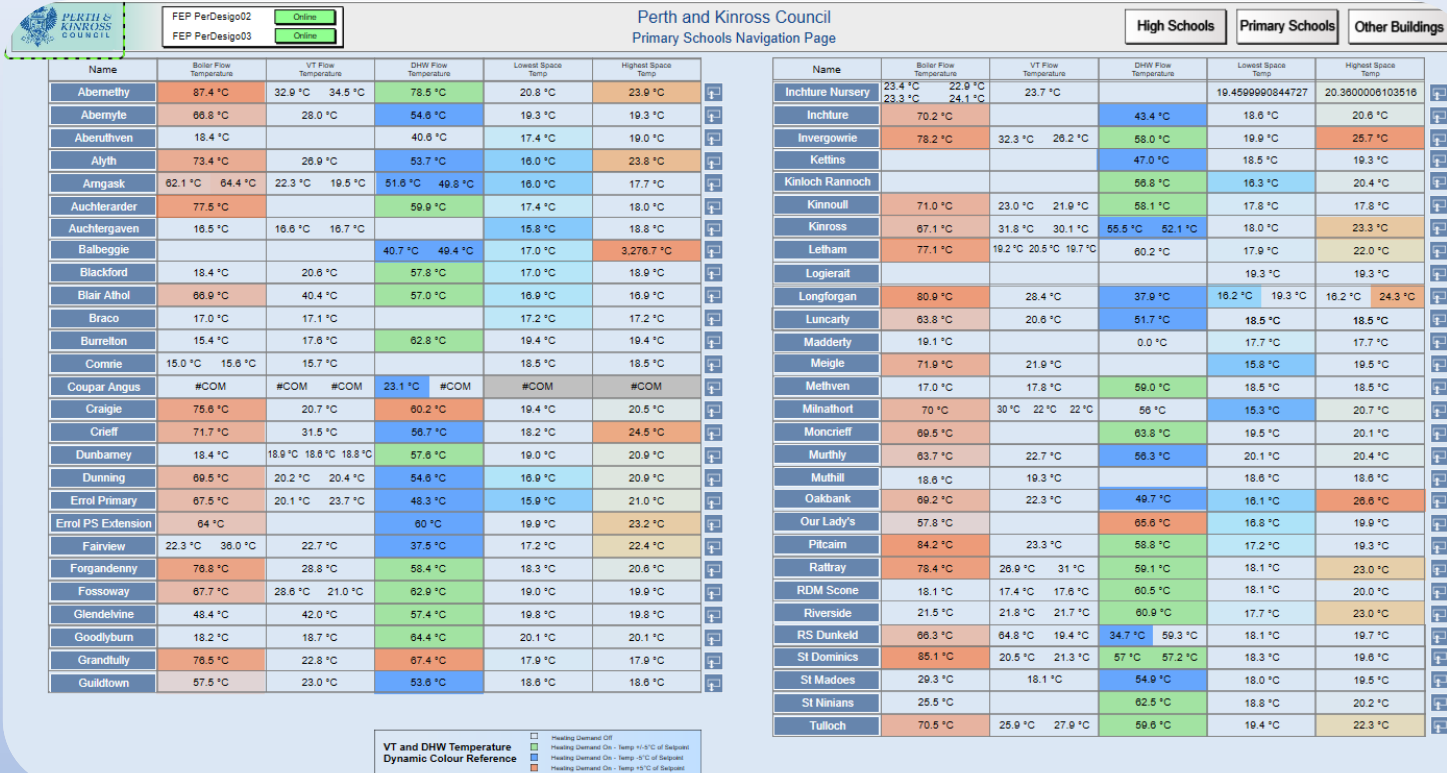


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Three Pillars of Success



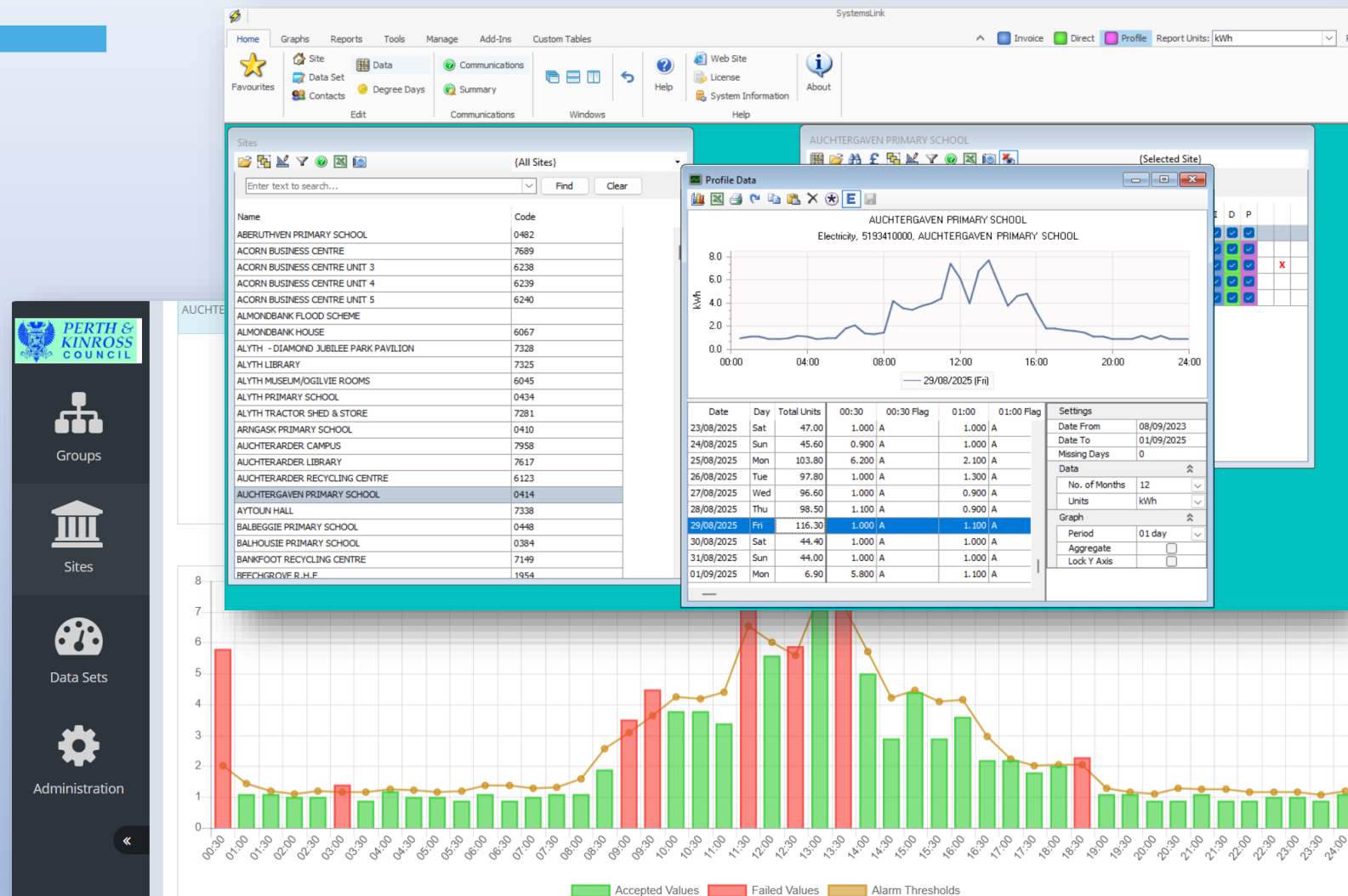
Good Systems – Building Management Systems (BMS)



- Invested over £800k in BMS over last 5 years.
- Comprehensive BMS partnership contract in place.
- Over 90 sites connected remotely.
- BMS platform is used across teams in PKC Property Services.
- Finalist in the “Energy Management Award - Building Controls Industry Association (BCIA)” in partnership with Learnd.

Good Systems - SystemsLink

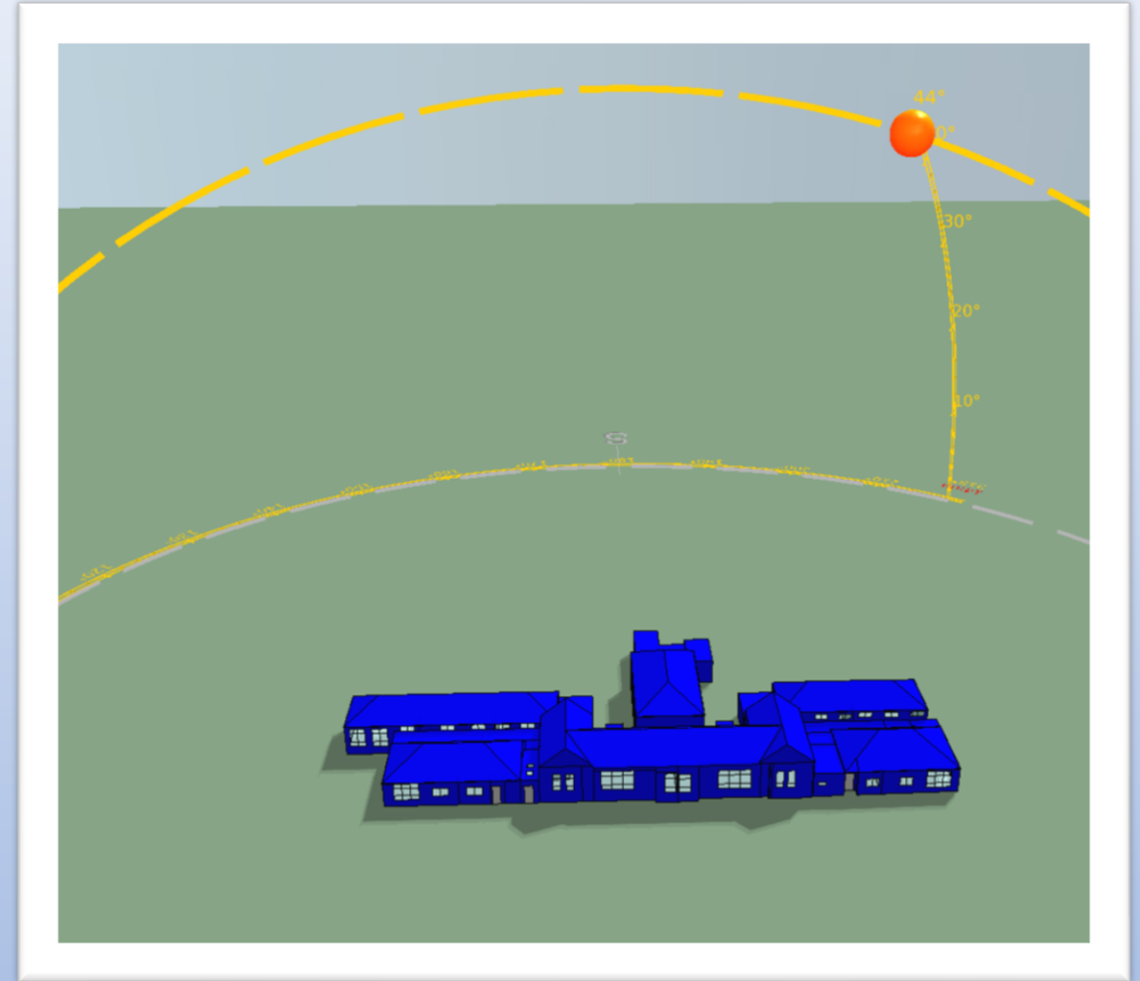
- Developed Energy Management platform.
- Over 100+ sites with day +1 data for Gas & Electricity.
- Smart Spaces profiles set up on over 70 buildings.
- Used for reporting and energy projections.
- Data drives improvement.




Good Systems – Integrated Environmental Solution



- PKC have trained and qualified IES VE modellers.
- IES VE a requirement on all new build and refurbishment projects.
- Use IES iSCAN on several projects during Building Performance Evaluation (BPE)
- Supported IES developing digital twin white paper
- Sub-contracted to help develop IES de-carbonisation tool in 2024



Good Practices

- 
- Policies to support temperatures.
 - Defined heating seasons.
 - Energy engagement and campaigns.
 - Pre & Post Occupancy Evaluation (POE).
 - BMS out of hours rota
 - Working groups in team & with other services
 - Developed briefs and specifications
 - Good records
 - Lessons learned



Energy Workshops at Youth Climate Conference

Interactive sessions increasing climate change awareness.



Energy workshops and project engagement with staff and pupils

Delivered energy workshop, focus group activities for pupils, and project engagement with teachers to brief about the project.


Pre and Post-Occupancy Evaluation Survey

Capturing staff feedback on thermal comfort, performance.



Video Development

Vidoe Project Planned at Auchtergaven PS Showcasing school's energy-saving journey, transition to heat pumps.



Switch-Off Campaign

Seasonal posters encouraging schools to reduce energy use.




Earth Hour Competition

Initiative promoting energy-saving activities, staff engagement.



Winter Campaign

Reducing energy consumption during colder months.



Energy Audit

Conducted energy audits at schools over the holiday to ensure everything switched off for holidays and Sharing audit results visually to promote energy saving practices.

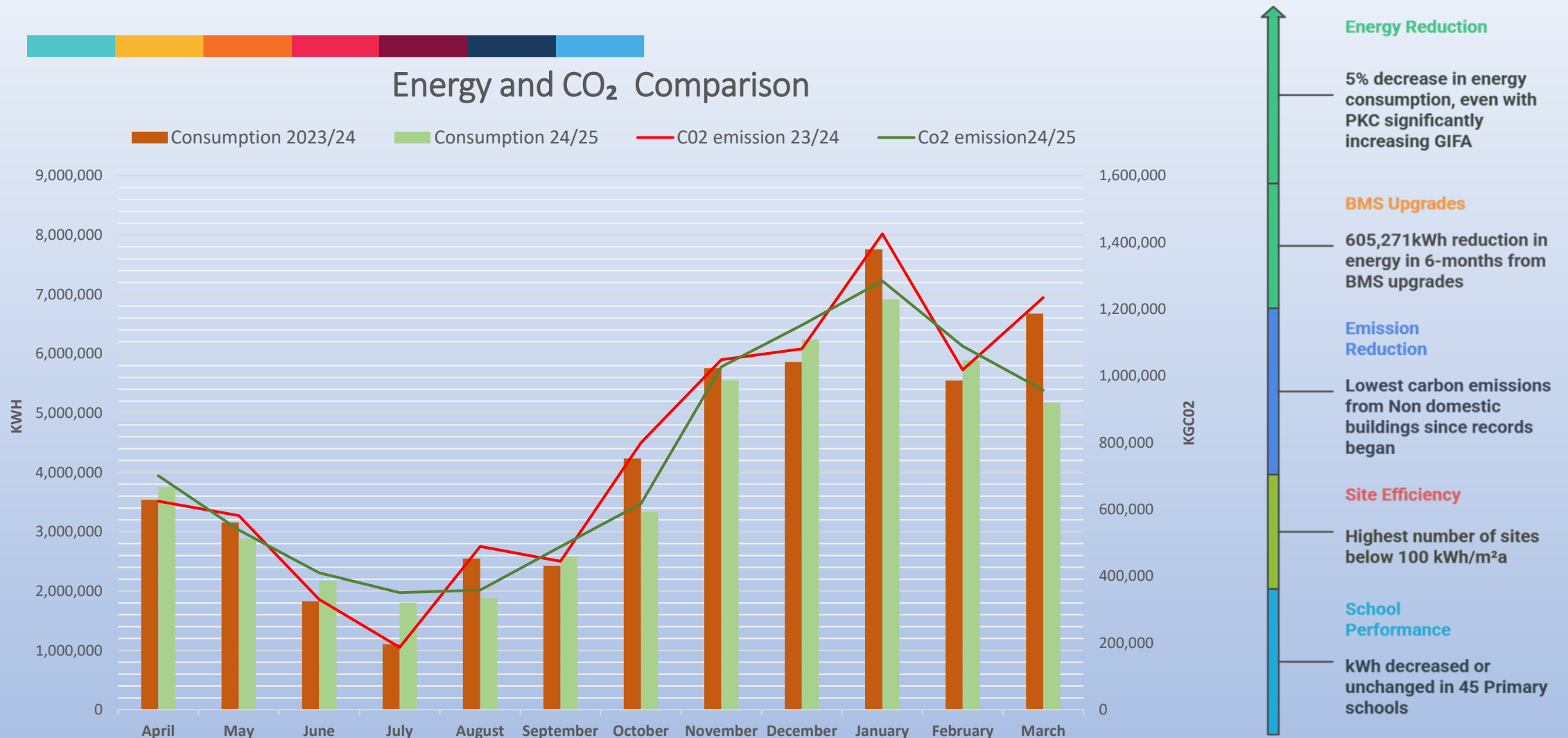
Good People



- Energy Team has 9 team members
- PKC Invest in people
- Majority started as Trainees/Modern Apprentice/Graduates
- Auchtergaven project team finalist for CIOB team award
- Supportive and innovative leadership



End of Year Report

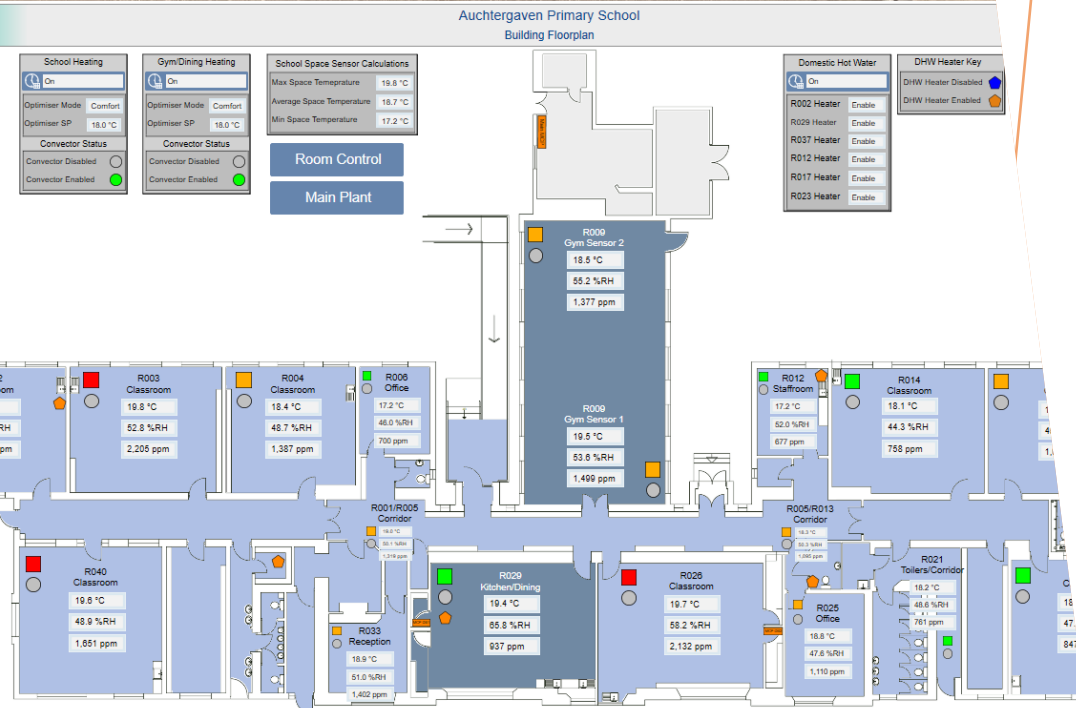


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Auchtergaven Primary School

- 1901 building with extension in 2000
- Removed temporary plant – oil
- Installed 2 x 110kW Mitsubishi air source heat pumps
- Installed 300mm loft insulation
- Upgraded existing electric supply
- Installed new sub-metering
- Upgraded BMS and install room by room control
- New heating system and fan convectors
- De-centralise hot water
- Completed LED lighting
- Successful in Scotland De-carbonisation Fund phase 1 - £324k
- First year of operation was 84 kWh/m2a
- 49% reduction in kWh
- Target for 2025/26 is 79 kWh/m2a





Site Name	Total Energy kWh/m²
RIVERSIDE PRIMARY SCHOOL	35
KINLOCH RANNOCH PRIMARY SCHOOL	46
ALYTH PRIMARY SCHOOL	70
LOGIERAIT PRIMARY SCHOOL	73
AUCHTERGAVEN PRIMARY SCHOOL	84
MADDERTY PRIMARY SCHOOL	85
INVERGOWRIE PRIMARY SCHOOL	86
ABERNETHY PRIMARY SCHOOL	88
ERROL PRIMARY SCHOOL	92
LETHAM PRIMARY SCHOOL	94
LONGFORGAN PRIMARY SCHOOL	95
KINROSS PRIMARY SCHOOL	98
TULLOCH PRIMARY SCHOOL	99
MONCREIFFE PRIMARY SCHOOL	100



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