

University of St Andrews - Automatic fume cupboard sash closer



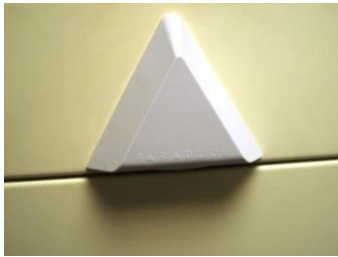
Upgrading Fume Cupboards:

Installation of 9 Automatic sash closers with presence detection

- Schneider closer fitted by Premier Labs - developed specifically for St Andrews.
- Sash user controlled by push button.
- Presence detection lowers sash if user is away from cupboard for more than 10minutes.
- Retrofitted to existing fume cupboards
- Now rolling out across all existing fume cupboards.

[Project completion – December 2011](#)

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BEFORE:

- Sash manual operation by users
- Observation shows sashes left open at night and over 500mm minimising containment.

AFTER:

- Sashes always closed at night, and for long periods during the day.
- User acceptance crucial – selling the energy message.
- Powers up in 2 stages to 200mm & 500mm. Users find 200mm adequate.
- Trialled at prestigious lab for best roll out (if they can do it!).
- Salix funded £9,468 for 9 sashes
- Measured Saving 18.4 tCO₂/yr
- So saving = 2 tCO₂/yr/sash
- Saving over 50% supply air
- Saving in running cost £3,215
- 2.9 yr technical payback

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Supporting Comments:

- Energy calculations based on measured reduction of supply make-up air from lab supply air handling unit – temps / air flow rate / fan power / heating coil energy, and electricity at 8.8 p/kWh, heat at 3.25 p/kWh averaged over payback period
- Forecast lifetime savings of £22,353 and 134 tCO₂ are expected
- Project helped the BMS Annex building win Carbon Trust Low Carbon Building Highly Commended 2012, and be shortlisted for the S-Labs awards.
- “The Salix ring fenced fund has been transformational in our ability to invest in energy efficiency improvements over the last 5 years”. David Stutchfield , Energy Officer and Fund Manager.
- The University of St Andrews has the highest committed Salix spend of any public sector body.

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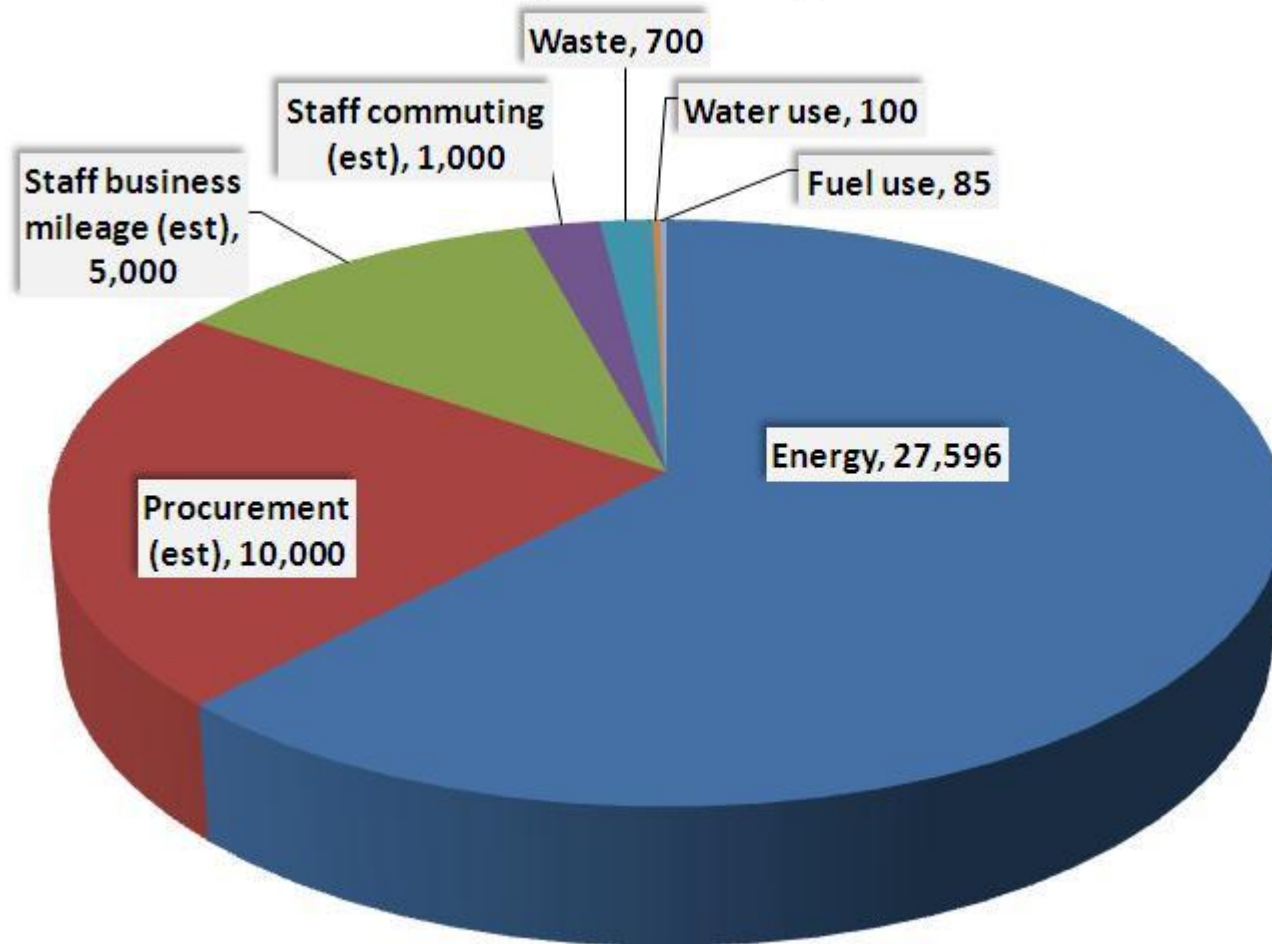
- The University has a Sustainable Development Policy 2012-2022, and a detailed Carbon Management Plan with specific reduction targets for all aspects of our carbon footprint.
- This includes the target of becoming carbon neutral for our energy supply by 2016. We have a detailed implementation plan, which details
 - Behaviour Change – roll out of Environmental Facilitators, etc.
 - Salix energy investment in high efficiency equipment and systems
 - Investment in renewables, including:
 - Solar PV
 - Solar Thermal systems (halls of residence and science building)
 - 12MW wind farm currently in planning at Fife Council
 - Large scale biomass CHP at Guardbridge and district heating at N Haugh.

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Our Carbon Footprint

2011-12 University Carbon Footprint - tonnes CO2



Or Green Achievements

