

**Date:** Thursday 10<sup>th</sup> December 2015

**Time:** 14:00 – 16:30

**Venue:** South Lanarkshire College

**Event Resources:** [Available here](#)

**JISCMail List:** [Please email scotland@eauc.org.uk](mailto:please_email_scotland@eauc.org.uk) if you wish to join



## **Sustainable Construction and Education for Sustainable Development in Further Education Topic Support Network: South Lanarkshire College**

**Attendees:**

Angus Allan	AA	South Lanarkshire College	Speaker and Host
Maria Bocanegra-Yanez	MBC	University of Strathclyde	
Elaine Crawford	EC	Dumfries and Galloway College	Convenor
Eva Fernandez Moran	EFM	EAUC	
Gillian Gibson	GG	EAUC	
Rebecca Petford	RP	EAUC	Coordinator
Nick Ribbons	NR	Zero Waste Scotland	
Steven Turnbull	ST	Zero Waste Scotland	
Donna Vallance	DV	Ayrshire College	
Paula White	PW	West Lothian College	

**Apologies:**

John Salter	Independent	Convenor
David Somervell	University of Edinburgh	Convenor

<b>1</b>	<p><b>Welcome</b> <i>Angus Allan, Depute Principal, South Lanarkshire College</i></p> <p>Attendees were welcomed to South Lanarkshire College (SLC), to hear more about the work which has been going on to develop a low-energy, low-carbon estate.</p> <p>Everyone was invited to introduce themselves to the room.</p>
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### **South Lanarkshire College's 3 Buildings**

*Angus Allan, Depute Principal and South Lanarkshire College*

Main building at SLC opened early 2008, with insurance policy to support sale of old site to ensure cashflow to complete build. Building is purpose-built design with separate teaching and communal areas which are open to the public. Improvements to this building have been ongoing since opening to improve sustainability credentials, including installation of ground source heat pump. In 2009 work began to future-proof the curriculum by training students on low and net-zero carbon buildings. The low carbon house project was developed as a public private partnership with around 50 contractors who provided technologies and expertise, and the house (which looks like a standard 4-bedroom house) is now used for teaching as well as by local community and others with interests in low carbon building.

SLC has grown by 30% over the last 4-5 years, and more teaching space was required. Option to extend current building or build something new – decided to build a net-zero energy and net-zero carbon building, designed to mirror the current building. This is the first building to be rated Outstanding for design under the 2014 BREEAM standards, with the team also hoping for Outstanding for build. The project received £700k from the European Regional Development Fund and funding from South Lanarkshire Council's Renewable Energy Fund. Handover date should be 16<sup>th</sup> December 2015.

When SLC moved to current site the team expected higher energy efficiency, but found that the building just operates differently. New building was designed as an integrated sustainable model rather than a cost plus model involving designing the building then adding sustainable features. This means at the design stage the need for air conditioning was written off, and the building management system was designed for the building type. New building is 600m<sup>2</sup>, providing 160 learner spaces, and is ahead of the legislation (2019 implementation of net zero carbon in Scotland).

Decided to go for BREEAM outstanding as wanted low energy and running costs, so includes:

- Fabric first design
- High waste standards and policies on site
- Scoring of biodiversity value before and after
- Low carbon design including optimised orientation, solar chimneys for ventilation (no ongoing maintenance), solar energy
- Low-level underfloor heating from ground source heat pump (six 200m boreholes) and no energy back-up
- All soil kept on site
- Large stakeholder consultation
- Full lifecycle costing
- Rainwater harvesting
- Triple glazing
- Solar PV for energy

Good to minimise energy consumption then think about and perhaps change where that energy comes from to minimise the impact of what is used.

Multi Vista have created a photo-log of the building process to use as a learning tool for students.

<p><b>3</b></p>	<p><b>Tour of the New Teaching Building</b>  <i>Angus Allan, Depute Principal and South Lanarkshire College</i></p> <p>Notes from the tour:</p> <ul style="list-style-type: none"> <li>• The technologies used have mostly been around for a while, but now are more affordable</li> <li>• Build aiming to be a model in accessibility – included preferences rather than minimum standards following consultations in the design</li> <li>• Attendance system for students to register in classes and access buildings using ID cards</li> <li>• Cupboards to store teaching materials</li> <li>• Building management system keeps the lights closest to windows dimmest to allow equal light intensity throughout the space and save energy</li> <li>• Companies sponsored aspects of the building and used it as an opportunity to train their own staff</li> <li>• Sound tightness designed in, including in the room dividers which create adaptable spaces</li> <li>• Feels like a normal building!</li> <li>• Students from the college taken on as apprentices in construction and decoration</li> </ul>
<p><b>4</b></p>	<p><b>Tour of the Low Carbon House</b>  <i>Angus Allan, Depute Principal and South Lanarkshire College</i></p> <p>Notes from the tour:</p> <ul style="list-style-type: none"> <li>• Affordable build – only costs £99,000 to build if energy technologies are excluded</li> <li>• Companies who sponsored get payback in knowledge transfer</li> <li>• Staples in insulation found to be letting air through – company designed new clips which are now used elsewhere</li> <li>• No trickle vents on doors to stop heat loss – ventilation system from garden which runs deep underground so comes in around 10C, warmer in winter than direct ventilation and cooler in summer</li> <li>• Wire-free lighting allowing easy replacement of fittings and saving resources</li> <li>• Community can use the building for free to encourage awareness</li> </ul>
<p><b>5</b></p>	<p><b>Thanks and Close</b>  <i>Elaine Crawford, Dumfries and Galloway College, ESD in FE Topic Support Network Convenor</i></p> <p>Remember to include education aspects within your Carbon Management Plan!  GG explained <u>LiFE</u> to all present.  Thanks very much to AA for hosting and providing the tour.</p>

*Minutes prepared by Rebecca Petford (EAUC-S Scotland Programme Coordinator)  
December 2015*