



Finalist's case study



Borders College Best Newcomer

Flushed with Success!

A UK First in Sustainable Energy from Waste Water

Project partners

SHARC Energy and Scottish Water Horizons

About the project

Borders College has recently completed the installation of the UK's first heating plant using sewage/waste water as a sustainable heat source at Scottish Borders Campus at Galashiels. When fully operational the installation will provide 95% of the heating requirements within a joint HE/FE Campus with multiple building types, ages and construction designs.

The approach

The project, from initial concept to implementation, shows the benefits that can be achieved from private and public sectors working together as partners toward common goals. The result is that the College, as well as the University's onsite operations, have secured improved security of heat supply, price certainty, and met the CO₂ reduction target set in 2010. This improves the value achieved for publicly-funded institutions, and contributes to the achievement of wider environmental impact and sustainability targets.

Our goals

The project needed to meet our key objectives, Low Carbon alternative to Gas to deliver 95% of the Campus heating needs, unlimited fuel source close to the Campus negating the need for regular deliveries, minimal disruption and space requirements on Campus, be able to integrate with our current heating system and controls, provide costs savings to the College over a sustained period and price certainty to ensure the College can budget for future years with confidence. The SHARC Project met all of these goals. Since installation and commissioning in March 2016, the College and SHARC Energy Systems have continued to work closely to improve the efficiency of the system, which is already seen as a model of innovative practice across the sector, with sustainability professionals and energy managers regularly visiting to assess the system.



Profile

- Further Education
- 5800 students (includes full and part time students)
- 350 staff
- Rural College



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CO2 savings

| | |
|--|----------------------------------|
| CO2t savings 2016/2017: | 76.8tco2 Actual |
| CO2t savings 2017/2018: | 216tco2 Estimated |
| CO2t savings over the life cycle of the project: | 4320tco2 Estimated over 20 years |

The future

There is significant scope to continue to improve the efficiency of the current system by evaluating means to generate onsite electricity via Solar PV to operate the heat pumps and alternative ways of storing heat and energy via battery storage are being explored.

Top 3 learnings from implementing your project

- 1. We must always remember to look beyond the obvious solutions and dare to be different!**
- 2. By working in true partnership, we achieve much wider benefits than working as individuals.**
- 3. We mustn't let initial barriers stop us when we know our solution is right!**

What has it meant to your institution to be a Green Gown Award finalist?

Being a Finalist is testament to a huge effort by the whole project team. For a small institution like Borders College, the wide recognition this brings is extra special and shows what can be achieved when we look beyond the obvious, use our imaginations and embrace innovation.

Further information

- <http://www.borderscollege.ac.uk/>
- <https://www.facebook.com/borderscollege>
- <http://www.sharcenergy>