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Biomass District Heating at the University of St Andrews

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Outline

Large scale biomass district heating scheme -
6.5MW biomass boiler, 23km of pipe,
connecting 41 buildings.

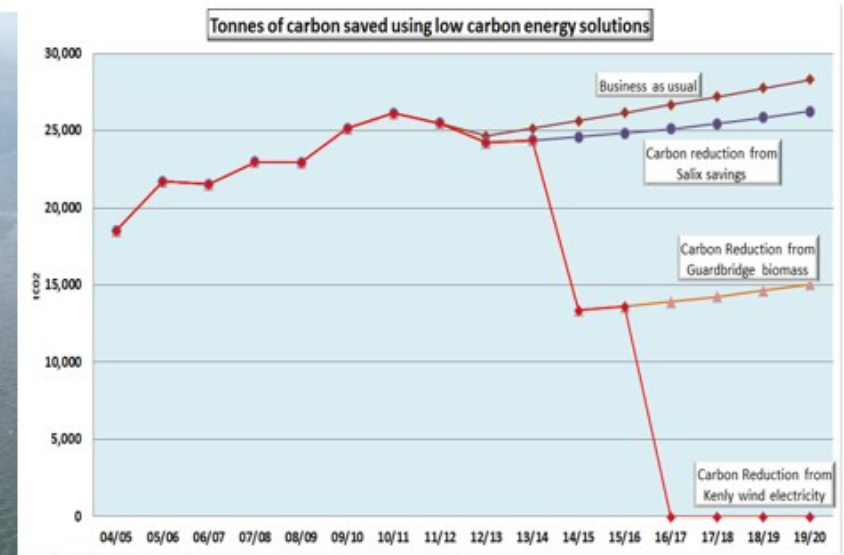
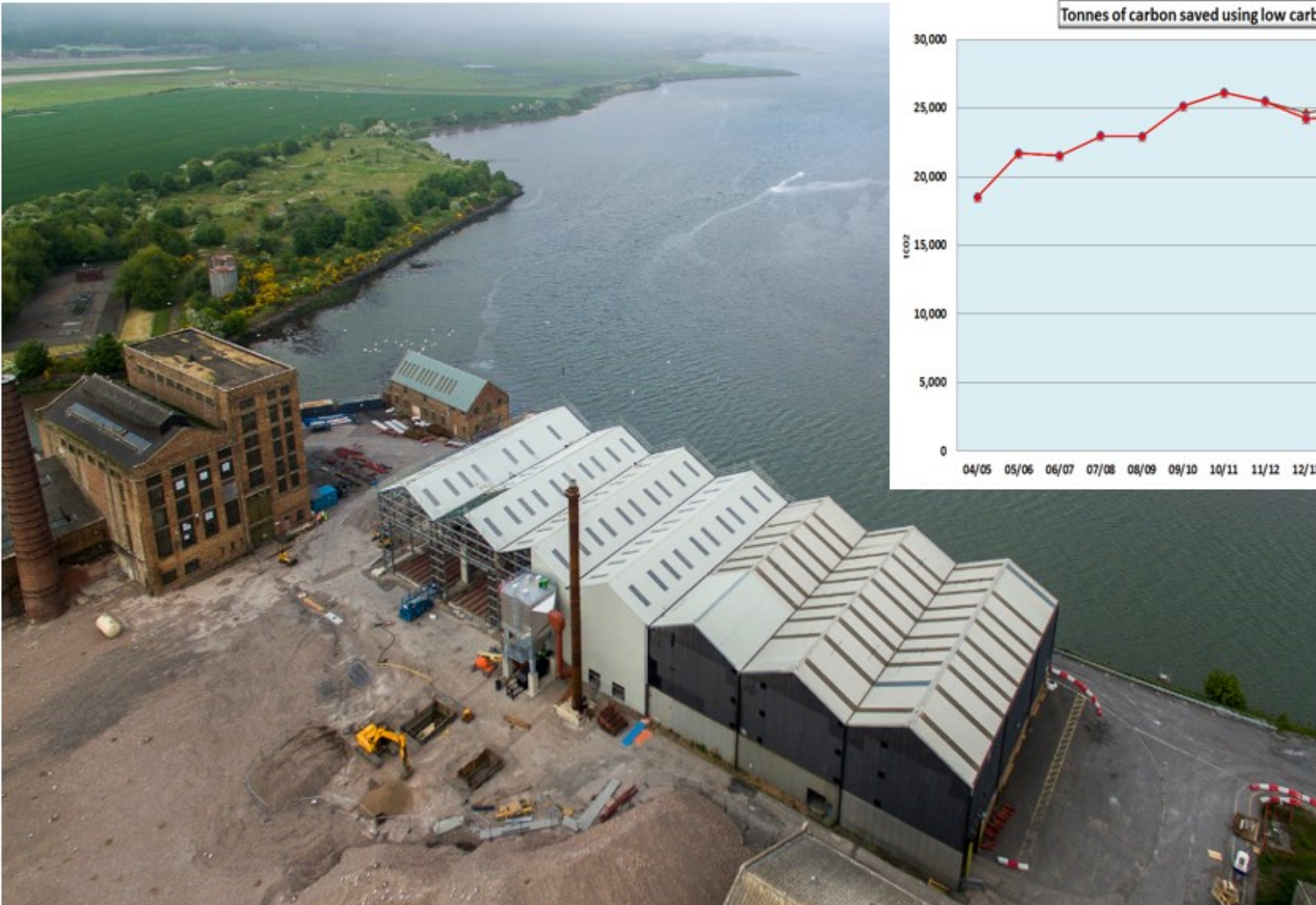
- 8,500 students
- 2,300 staff
- 149 Buildings

Sustainability



- Carbon Neutral
- Zero Waste
- Transition University
- Smart Buildings
- Clean Energy
- Conscientious People

Carbon Reduction

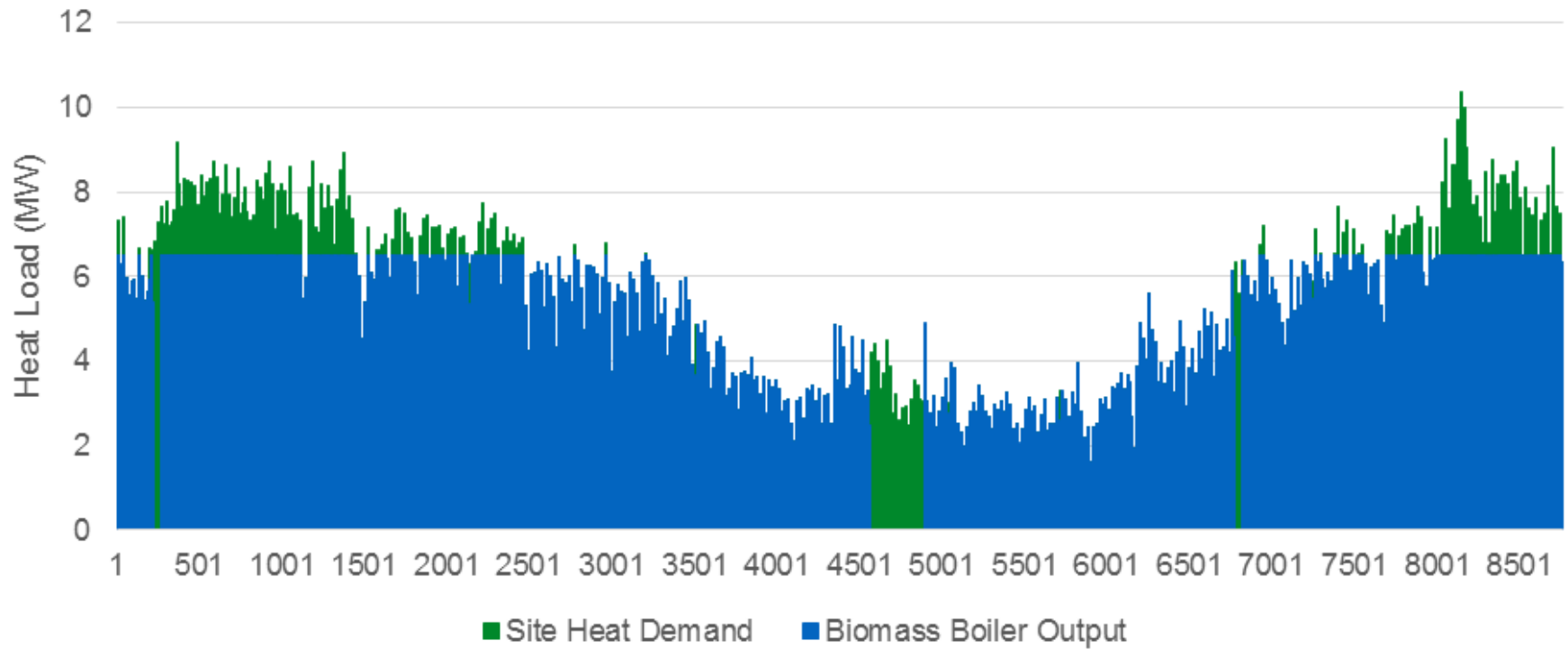


Timeline Biomass Project

- 2013 OJEU tender for heat only option
- 2014 Contract award to Vital Energi
- 2015 – 17 Installation of DH

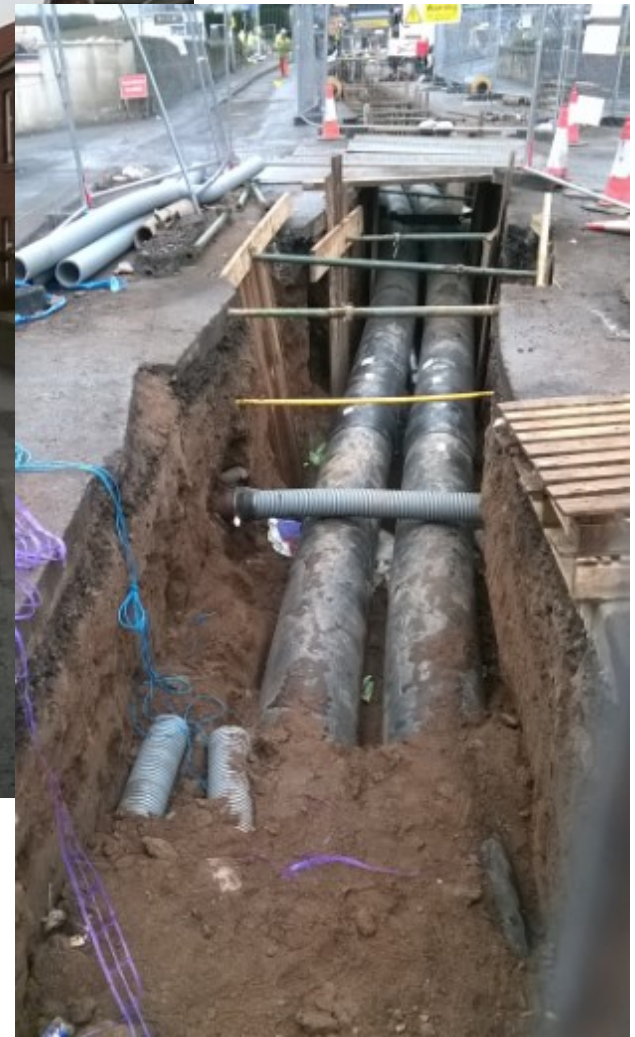


Annual Demand





Guardbridge DHN Pipe





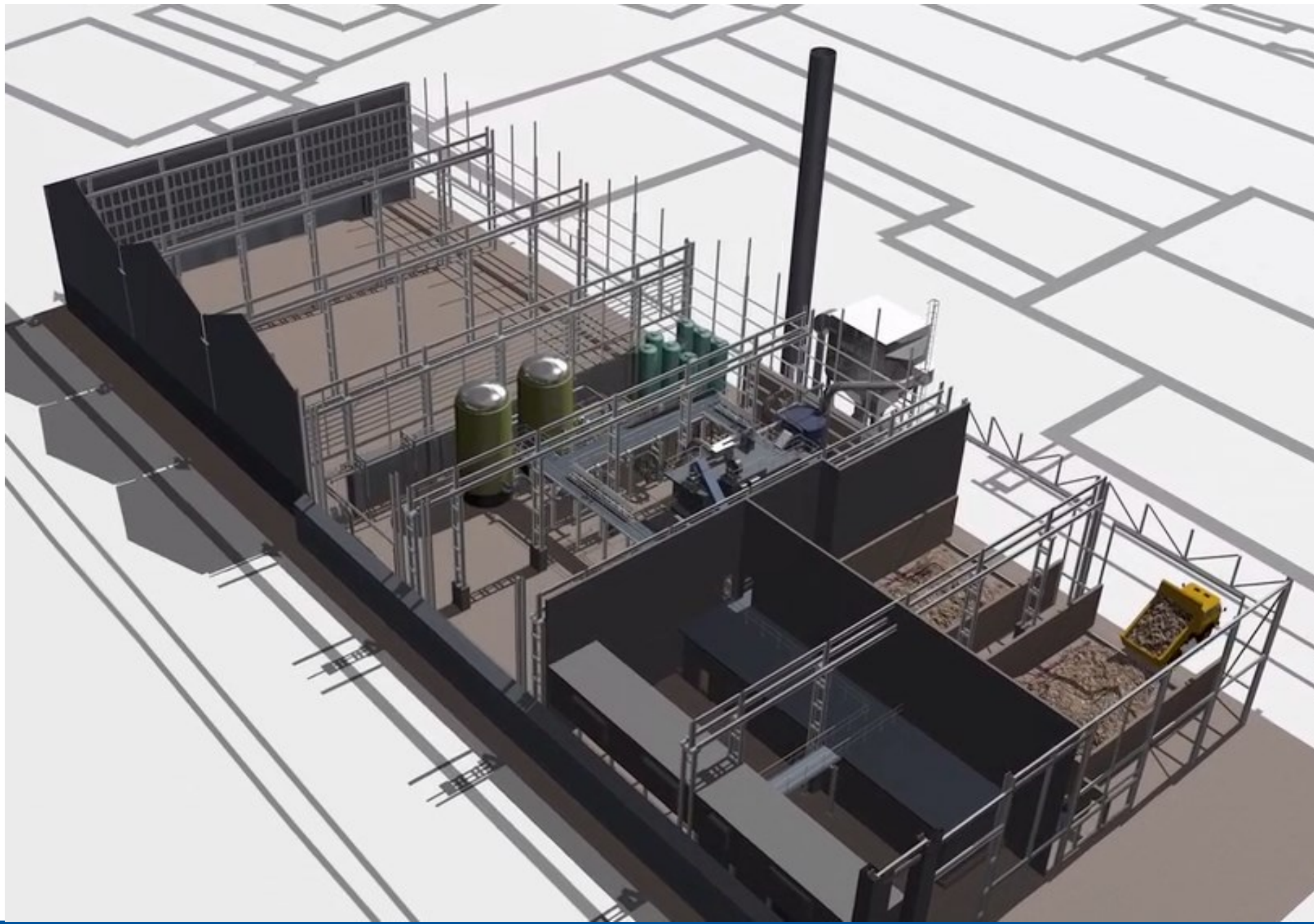


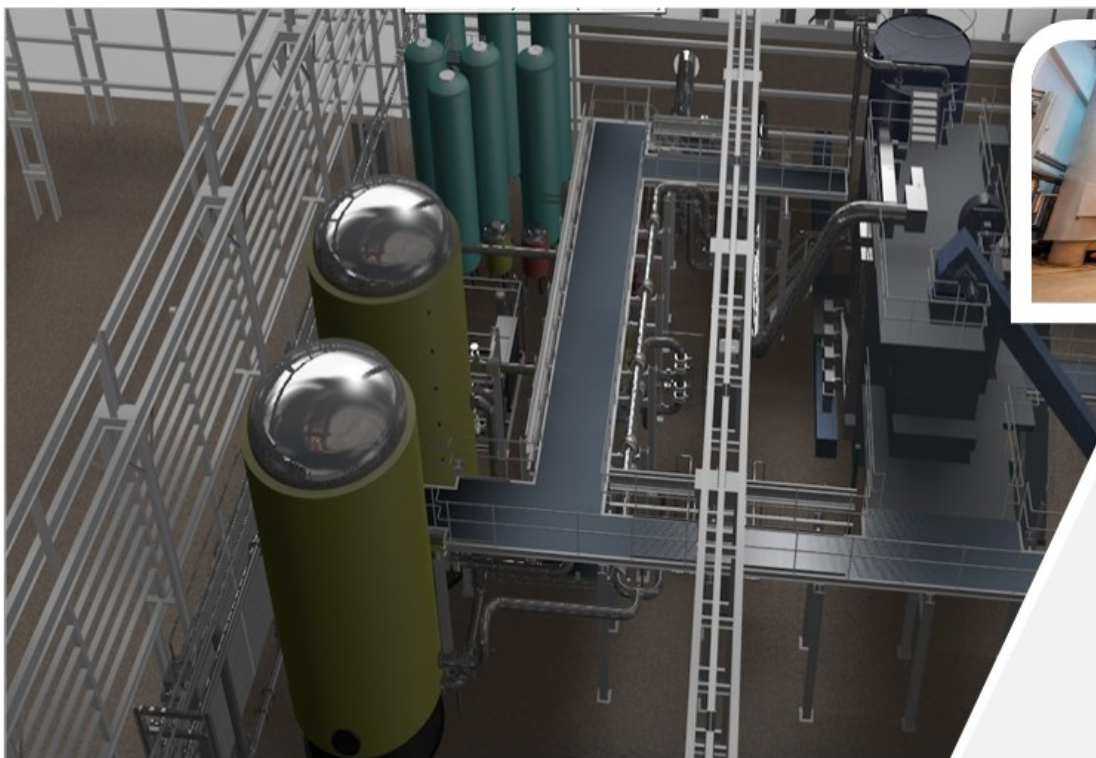
23km of district heating
pipework, connecting 41
campus plant rooms





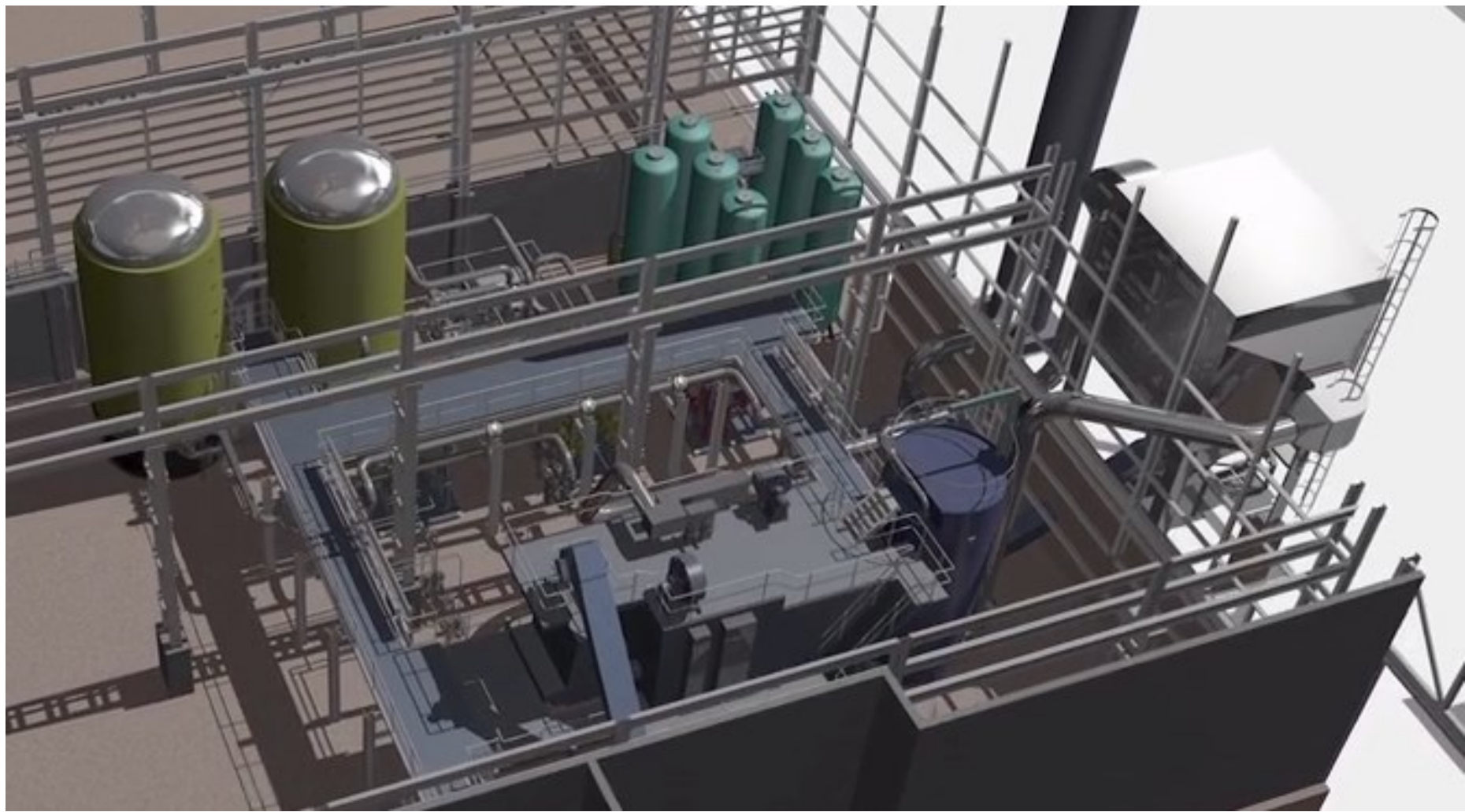
- > Re-use of existing brownfield site
- > Renovation of existing building for energy centre





The entire energy centre was designed around providing future learning and education.

We constructed a classroom and viewing platform to allow safe access around the energy centre and fuel store.





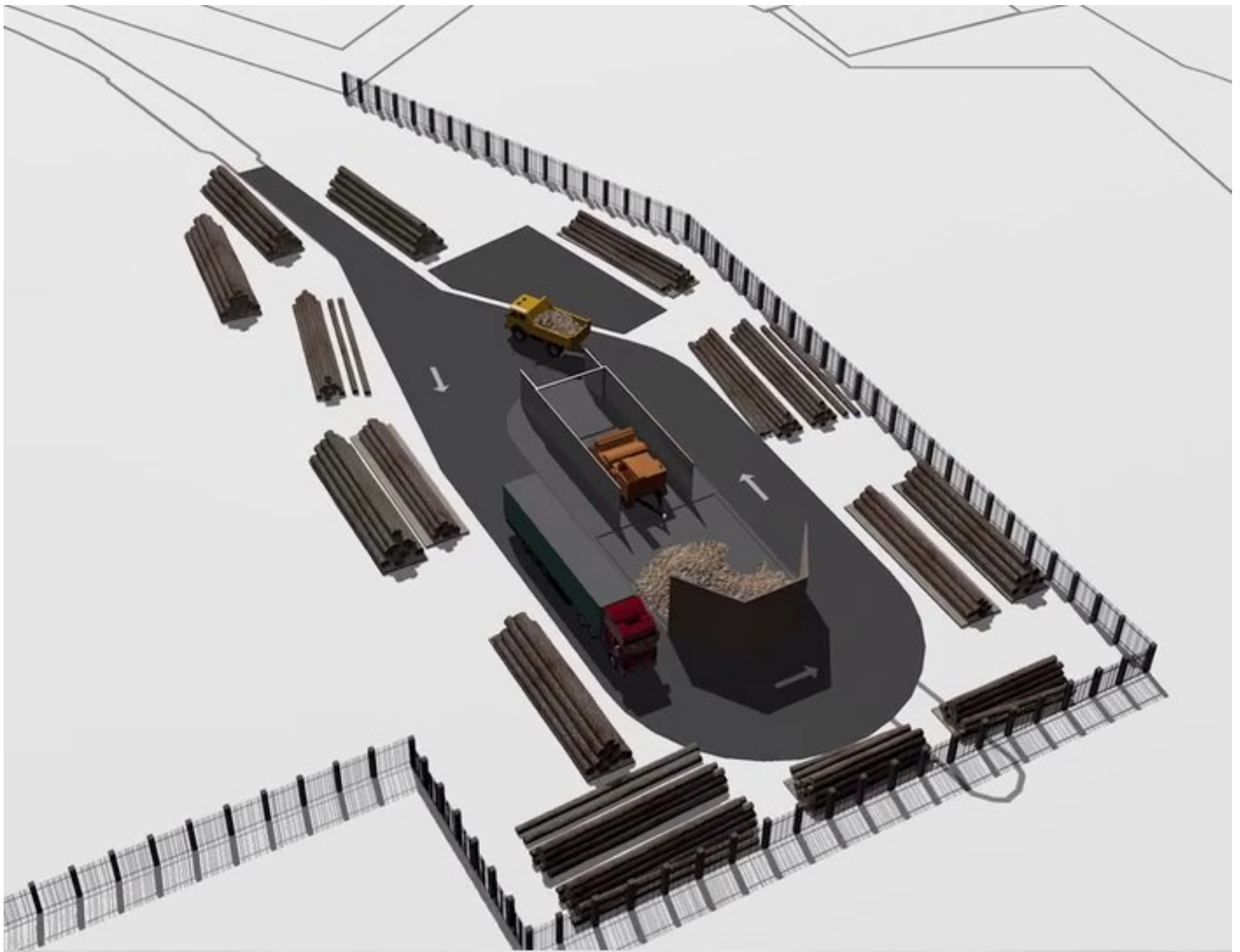


- > Electrostatic precipitator
- > Reduces particulate emissions
- > Fly ash and grate ash collected separately



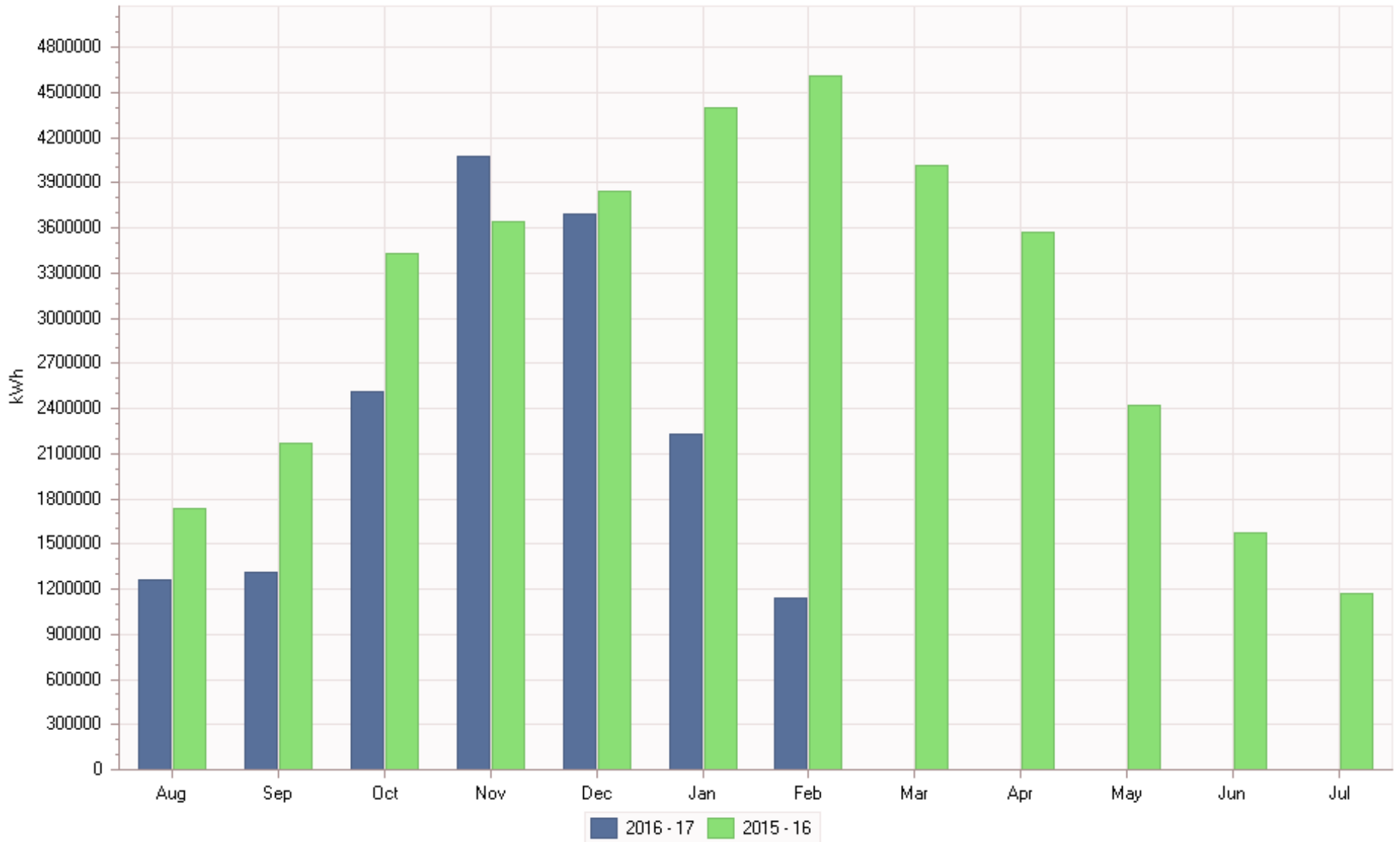
Key Factors

- > Sheer scale - one of the largest biomass boiler installations in the UK
- > One of the longest DH interconnecting pipelines in the UK
- > Connecting to live and operational buildings ensuring no loss of service
- > Currently providing almost all heating and hot water demands for 41 buildings on the University Campus













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