



# **Business case for installation of biomass**

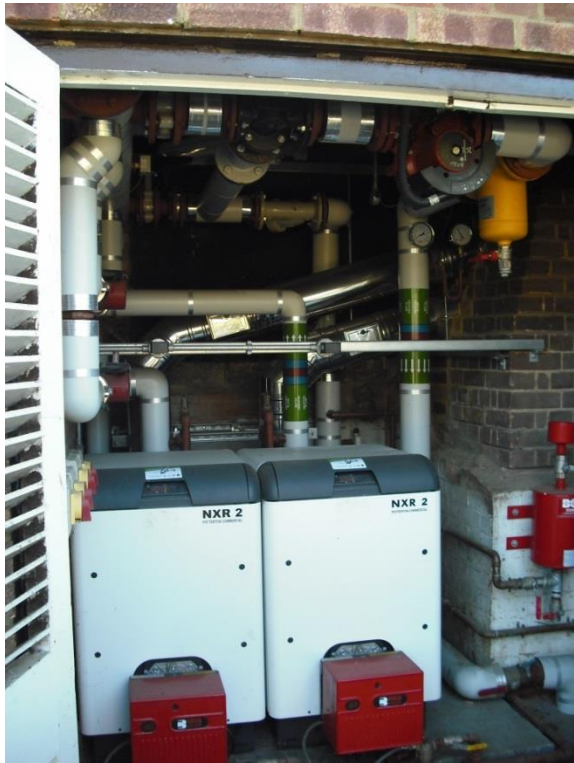
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# Stockwood Discovery Centre



- Historically oil was used



When the new Discovery Centre was built in 2007, biomass was installed to heat the new buildings.

But....




- The design wasn't correct and most of the time the boiler locked out and so the site ran off the backup LPG fuelled boiler ..... at great expense!
- Biomass boiler became obsolete and parts could no longer be obtained



In 2015 the decision was made to replace the biomass with a new boiler and control system



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- Selected an ETA PE-K 95kW boiler
  - Cost for boiler £21,000
  - Additional associated works plus installation £15,000
  - New controls – zoning for various blocks and hot water to site calorifier



## Financial model for investment:

- RHI rate 5.87p/kWh
- Predicted annual usage 124,830 kWh
- RHI payments over 20 years £197,000
- Cost of biomass over 20 years £162,000
- Compared with cost of LPG £258,000
- **Net benefit £284,000**



- Payback so far:
- RHI income July 15-April 16      £4700
- Cost of wood pellets      £5700
- Cost of LPG      £0



# Luton Central Depot Project



Originally 3 oil fired boilers  
operating 24/7 during the heating season





Two 10,000  
litre buffer  
tanks  
£19,000



ETA 500kW boiler  
£70,000



Gas boilers and  
pipework  
£190,000



35 tonne silo  
£17,000

**Total Project Cost £450,000**



## Planning

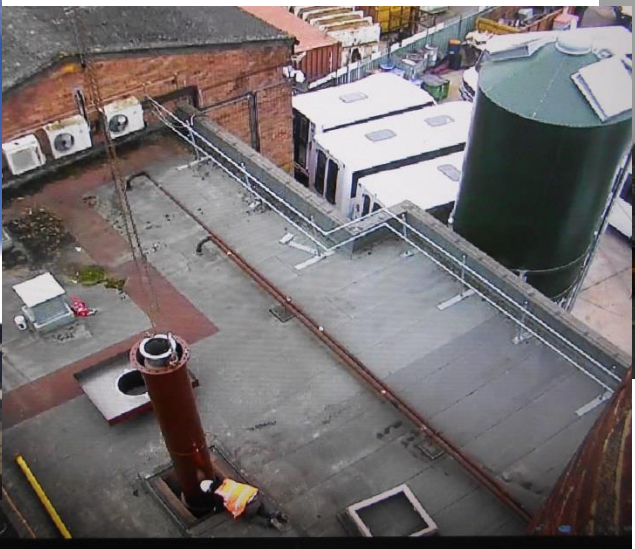
Require planning permission for:

Biomass boiler – air quality

Environmental Health requested P10 and P2.5 figures which Austrian manufacturers could not supply due to use of different criteria!

Flue – height and visual impact

Building Control – boiler replacement so no issues





## Financial model for investment:

- RHI rate 5.18p/kWh
- Predicted annual usage 657,000 kWh
- RHI payments over 20 years £915,000
- Cost of biomass over 20 years £860,000
- Compared with cost of oil £1,115,000
- **Net benefit (over 20 years) £1,170,000\***

\*excludes cost of gas

Next – Stockwood Park  
Golf Pavilion.....!







# Thank you

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