

# CASE STUDY

## CURRIDGE PRIMARY SCHOOL BERKSHIRE, UK

### MOTIVATION

Curridge Primary School is situated in Curridge, Thatcham, Berkshire. The building is a small primary school of approximately 100 pupils with the original building around 100 years old, there have been extensions added since then. The building is brick built construction, the original part being solid wall. The building floor area is something less than 1000 sq.m. The existing oil fired boilers were no longer serviceable and required an alternative solution in a short timescale, either like for like replacements or a biomass fuelled boiler. The local renewable energy agency TV Energy provided a feasibility study to determine whether biomass boiler supplied heat was a viable option. It was able to access funding from the regional development agency (SEEDA) to part fund the boiler cost and offer to deliver woodfuel to the boiler as part of its existing operation, and so the ESCo idea began.

### ESCO MEASURES

The heating system is standard radiators throughout the building originally supplied with hot water generated by two oil fired boilers. The existing radiators are now supplied by a single biomass boiler, with an additional heat loop connected to two external pre-fabricated classrooms which were previously heated using individual LPG fuelled heater units. There were no additional measures undertaken with the exception of connecting the two external classrooms to the biomass heating system.



The investment cost was approximately £60,000 (€67,500), of which £20,000 (€22,500) was provided as a grant by SEEDA. The school through the local authority provided the equivalent sum of capital as would have been required to provide a like-for-like replacement of the oil boilers.

### ACHIEVEMENTS

There were no appreciable differences in the heat consumption before and after the ESCo operation as no other measures besides the extension of the biomass heat loop were carried out. The project required a number of visits to iron out initial teething problems. It was important that the client at the start of the project understood that even though the cost of woodchip is less than the alternative heating fuel, the overall cost of operation of the boiler will be similar to the previous system. This is in order for the ESCo to recover the investment cost of the equipment through charges for heat.

The school is very pleased with the boiler and ESCo arrangement, once initial teething problems were overcome. The ESCo is happy with the operation, but it should be understood that this type of project with a small heat load requires significant grant funding in order for the ESCo to be financially viable.

