



## Gary Court - commercial case study



### The plant room at Gary Court houses two boilers; one mains boiler and one Binder 149kW wood pellet boiler.

A complete Binder boiler inspection was conducted, identifying the following:

1. The grate had collapsed with the grate teeth lying on the ash receiver floor.
2. The frame of the grate had disintegrated due to what appeared to be severe overheating.
3. The combustion chamber firebricks were cracked and dislodged. Evidence of severe overheating or prolonged very high temperatures.
4. The heat exchanger was clogged and covered in flue ash and soot. This is evidence that either no or very little maintenance was ever carried out.
5. The system appears to have been installed without a Back End Protection circuit or BEP. The BEP ensures the boiler circulates water around the water jacket to raise the boiler to operating temperature quickly, before opening a three port valve to allow the main circuit to be heated. The damage caused to the boiler is due to excessive and prolonged periods of high temperatures.

### The Solution

As a result of the biomass boiler breakdown, VHL took full responsibility for providing heating and hot water to the residents affected in this building.

#### Step 1

An oil-filled boiler was installed as a temporary measure. It was regularly monitored by VHL engineers and topped up to ensure no disruption in services and resident satisfaction.

#### Step 2

A gas boiler present at the property was fixed, which provides the heat on a temporary basis. The client was made aware that the gas boiler, although sufficient in the summer, would not be adequate for coping with demands in the winter and a permanent refit would need to be done.

#### Step 3

A quotation was provided to replace the biomass boiler as per the recommendation.

#### Step 4

The client was happy with the quote provided. Work is due to begin on installing a new replacement biomass boiler.

