

energy measures

fact file

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ADDITIONAL INFORMATION: Boilers

Understanding the types of boiler controls relevant to your property

A wide range of boilers and boiler controls are available and many of these are illustrated in the table below.

As a rule, high cost activities have a payback period of three years or more, moderate cost one to three years and low cost up to one year.

Please see the table on the following page for more details.

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| BOILER CONTROLS | Description | Cost | Saving |
|---|---|----------|----------|
| Simple time control | A time switch that turns heating on and off at a fixed time each day. These controls function regardless of internal or external temperature. | Low | Low |
| Seven day time switches | A time switch that turns heating on and off at a fixed time for each different day of the week. These switches allow you to vary heating times according to occupancy patterns throughout the week. | Low | Low |
| Optimum start controls | A control that switches the heating on so the building reaches the correct temperature just in time for occupation. These controls avoid the need to heat redundant space. | Moderate | Moderate |
| Weather compensation controls | Vary the heating effort according to the outside temperature. The heating effort is, therefore, carefully matched to external conditions. | Moderate | Moderate |
| Room thermostats | Allow individuals within a room to dictate the temperature | Low | Low |
| Thermostatic radiator valves | Regulate the flow of hot water through the radiators in a room on order to maintain a local temperature. Most effective in very large rooms or in south/south west facing rooms which are heated by the sun during daylight hours. | Low | Moderate |
| Boiler sequence controls | Enables only the number of boilers required to meet the current demand to operate, thus ensuring maximum efficiency. | Moderate | High |
| Correct wiring of the thermostat into boiler controls | Ensure that boilers can only run where there is heat demand. Unnecessary running is known as dry-cycling and is often remedied by correctly wiring the boiler thermostat into the control system. | Moderate | Moderate |
| Separate hot water and space heating systems | Install a separate hot water heating system and turn off the boiler during the summer months. | Moderate | High |
| Occupancy linked controls | Probably most appropriate during a refurbishment, these typically reduce guest room services to a minimum while a room is unoccupied and return settings to optimum as the guest re-enters the room. | Moderate | High |
| Heat on demand water heaters | In areas where there is a small demand for domestic hot water or where the point of demand is a long way from the boiler, it is worth considering local instantaneous water heaters. | Low | Moderate |
| Install spray taps | Spray taps use around one quarter of the water volume of conventional alternatives. They thus use four times less hot water in the same operating time. Spray taps can be used in most areas, but in very hard water areas lime scale problems build-up can blocking the spray. In these areas, flow restrictors, which restrict water flow at a certain pressure, in the pipes, may be a better option. | Low | Moderate |