Energy Savings Sheet: Heating/Hot Water

2EA have produced this sheet to identify areas of potential energy savings. It consists of notes and checkpoints that can be used by managers to help reduce overall energy consumption.

Notes

- Avoid overheating space or water – check thermostats and controls.
- Check radiators and heat emitters are free from obstructions.
- Check pipes are insulated, especially in unheated spaces.
- Check time switches so heating times match building occupancy.
- Check how your hot water is generated in summer; avoid using large boilers for small loads.

Checkpoints

Is water heated to the right temperature?

- Hot water for catering and washing should be heated to 60-65˚C to avoid Legionella, but no higher to reduce excessive heat loss.
- Check the lagging of hot water storage tanks and calorifiers and reset or improve thermostat control.

Is your water storage of the correct size?

- Many older hot water storage systems are oversized for their duty; fitting smaller storage or valving off multiple units reduce wastage. Spray taps can reduce water consumption by two thirds.

Is your water heated locally?

- Large buildings may have hot water storage heated by the heating mains; in summer, great, economies are possible using a local heat source such as a small boiler or electric immersion heater.

Do you check space heating controls and air conditioning temperatures regularly?

- Good practice suggested temperatures are 16˚C for warehousing, 16-18˚C for light manufacturing and 20˚C for offices.
- Ensure frost thermostats are set to 5˚C.

Is local temperature control enabled?

- Consider fitting Thermostatic Radiator Valves to radiators.

Is heat trapped or lost?

- Spaces with high ceilings can suffer high temperatures at high level, known as stratification, particularly with warm air heaters. Fitting ceiling fans can help de-stratify the air, reducing roof heat losses and improving comfort.
- Tall, poorly insulated buildings such as factories and warehouses are often best heated with direct fired radiant tube heaters.

Are your radiator circuits weather compensated?

- With such circuits the heat of radiators is reduced in mild spring and autumn weather using a mixing valve based on the outside temperature. This reduces overheating, improves occupant comfort and can save significant amounts of fuel.