

marstair

fact sheet #2

GreenHeat refrigeration system energy savings calculations

WHY WASTE THE HEAT YOU ARE ABSORBING FROM YOUR REFRIGERATION CABINETS WHEN YOU CAN USE IT TO HELP HEAT YOUR STORE?

The system captures the waste heat from your outdoor condensing unit that would normally be lost to the atmosphere and uses it as background heating to warm the store reducing both your heating bills and carbon footprint.

SAVE UP TO £1550

PER ANNUM

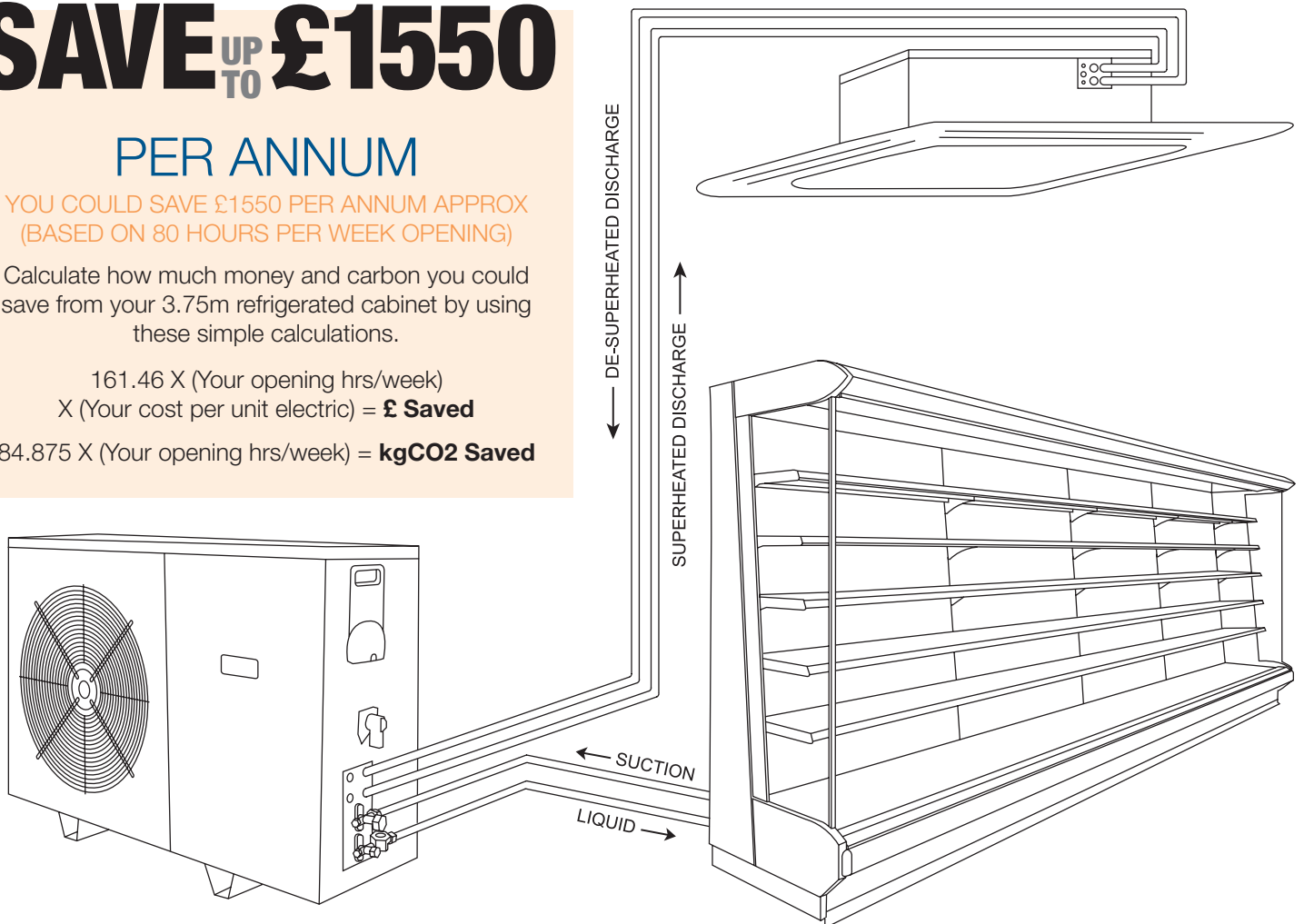
YOU COULD SAVE £1550 PER ANNUM APPROX
(BASED ON 80 HOURS PER WEEK OPENING)

Calculate how much money and carbon you could save from your 3.75m refrigerated cabinet by using these simple calculations.

161.46 X (Your opening hrs/week)

X (Your cost per unit electric) = **£ Saved**

84.875 X (Your opening hrs/week) = **kgCO2 Saved**



THE SIMPLE EXAMPLE CALCULATION BELOW SHOW HOW MUCH YOU COULD SAVE AGAINST A DIRECT ELECTRIC HEATING SYSTEM.

- Electricity cost per unit = 12p/kWhr
- Shop opening hours = 80 Hours per week
- Assume heating required two thirds of the year
- Assume standard 3.75m cabinet requiring 5kW of cooling
- Waste ejected from the refrigeration condensing unit = 5kW Cooling + 2kW compressor power input = 7kW
- Assume refrigeration condensing unit runs for two thirds '67%' of the time.

CALCULATIONS

CALCULATE GreenHeat HEAT RECOVERY RUNNING HOURS =

Shop opening hours per week '80'
Multiplied by
Number of weeks requiring heating in a year '52x2/3'
Multiplied by
Refrigeration condensing unit running time percentage '2/3'
= 80 X 52 X 2/3 X 2/3 = 1850 Hours approx

CALCULATE HEAT RECOVERED BY GreenHeat REFRIGERATION SYSTEM =

GreenHeat running hours '1850'
Multiplied by
Waste heat ejected from Condensing unit = '7'
= 1850 X 7 = 12950kWhrs

CALCULATE ELECTRICITY COST SAVED BY GreenHeat =

Heat recovered by GreenHeat system '12950'
Multiplied by
Electricity cost per unit '0.12'
= 12950 X 0.12 = £1550 per annum approx

THE GreenHeat SYSTEM NOT ONLY SAVES YOU MONEY, IT IS VERY GREEN AS WELL

BY USING THE EXAMPLE ABOVE WE CAN CALCULATE HOW MANY KG OF CO2 THE GreenHeat SYSTEM WOULD SAVE

1kWhrs = 0.5246kgCO2

kg of CO2 saved =
Heat recovered by the GreenHeat system '12950'
Multiplied by
Conversion factor 0.5246
= 12950 X 0.5246 = 6790 kg CO2 saved per annum



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Process/Material Cooling • Close Control • Refrigeration