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# Problem

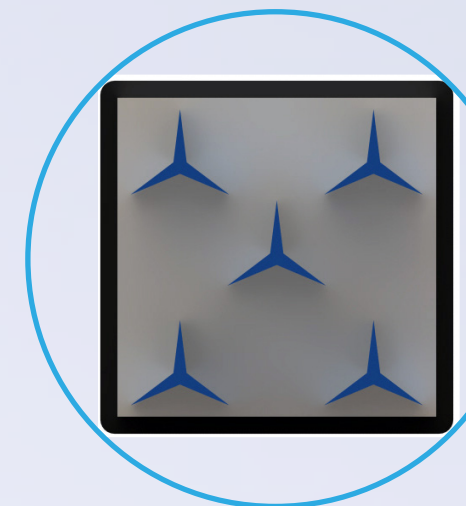
High domestic energy usage,  
costs & carbon footprint

Domestically the UK:

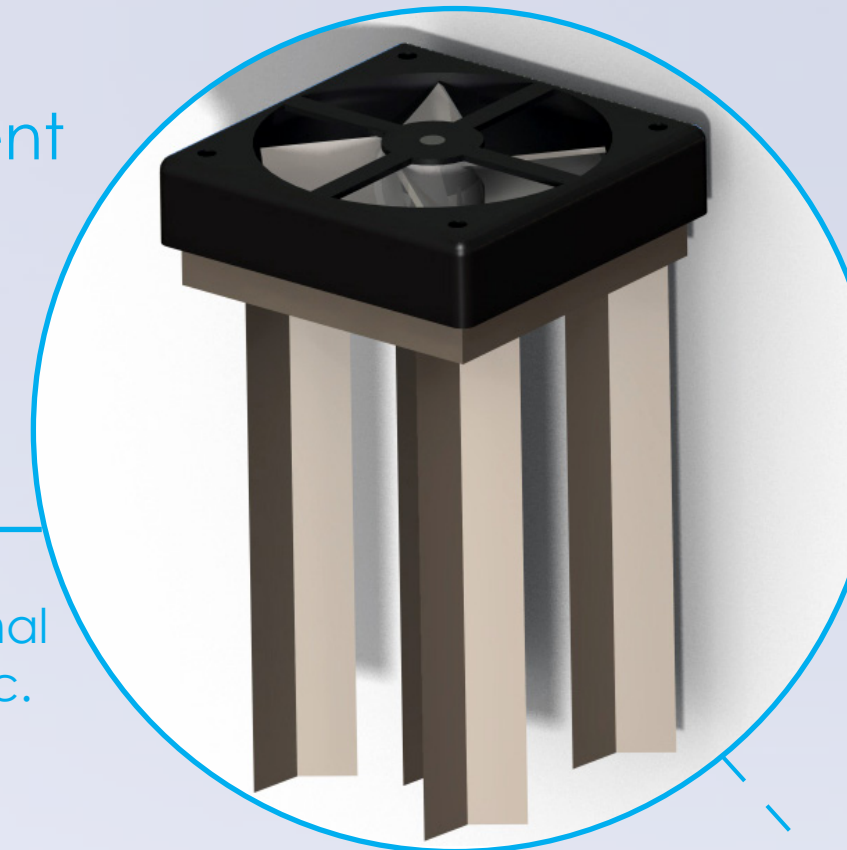
Uses the equivalent of 10.9 million tonnes of oil/yr to heat water  
This number equates to 410kg of oil (approx 3 barrels) per household

Average annual heating bill estimated at £300

## Thermal extraction element



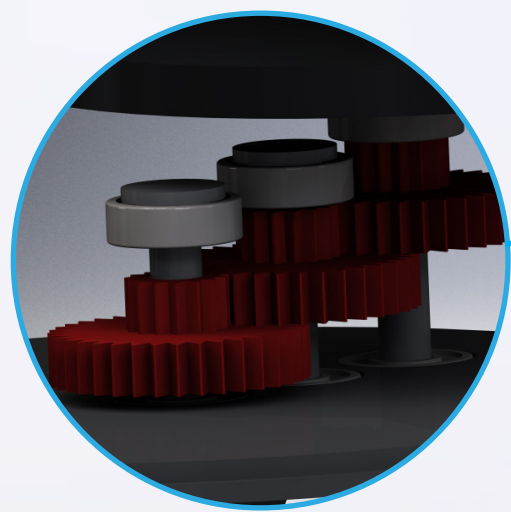
- Converts thermal energy into d.c. electricity



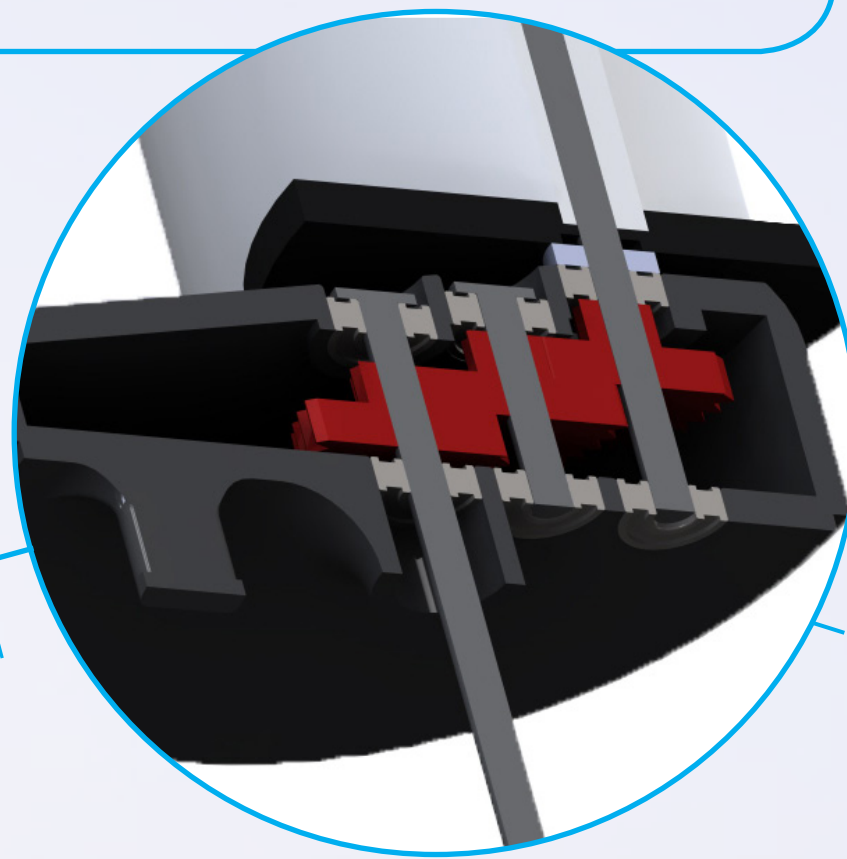
## Helical Structure

Improves the extraction process

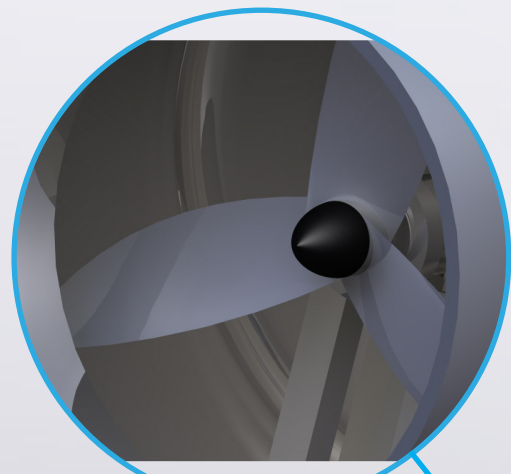
Gear train, ratio 9:1



Drives convection fan  
with power from the  
wind fan

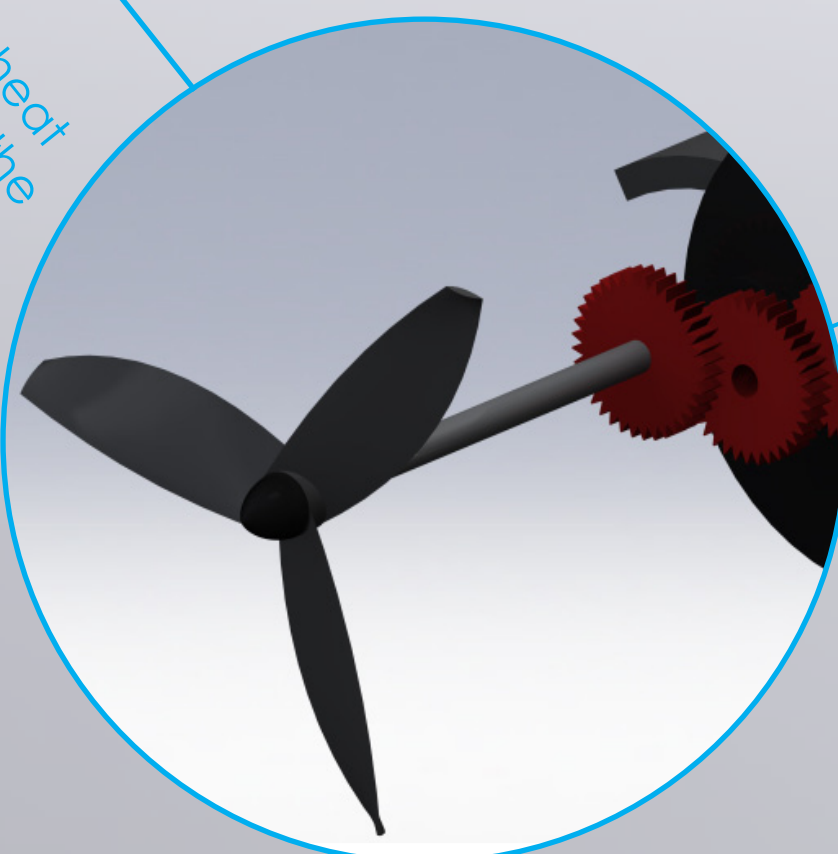


Wind fan



## Convection fan

Increases the heat transfer rate from the gas to the extraction elements



## Key Features

1. Manufactured from recycled and recyclable materials
2. Can be retrofitted to existing flue pipes
3. Saves up to 16kg of CO<sub>2</sub>/annum
4. Generates up to £22 of electricity a year
5. 1 hour of boiler usage can:
  - Power 16 LED light bulbs for up to 2.75 hours
  - Charge a smartphone up to 12 times

## Solution

# The Eco-Helix

- Boiler exhaust energy capture system

- Extracts energy from heat in the waste gas to generate electricity for use within the home
- Squeezes more value from the domestic heating system
- Low carbon footprint & saves money

