

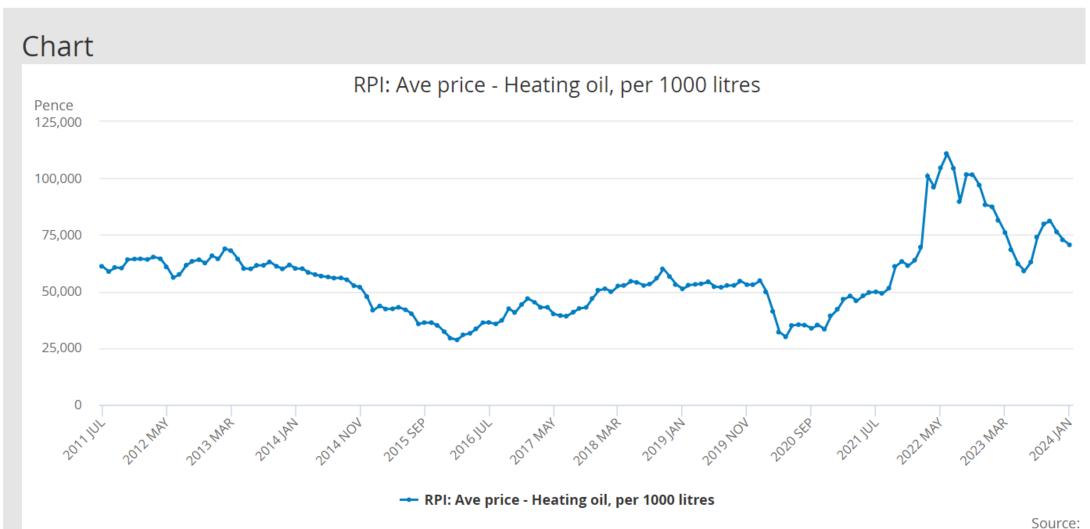
**Buckinghamshire Community Energy** 

Owning our carbon neutral future

# Decarbonised Heating

How to get off oil and future proof your home's heating





# What is the actual price of oil heating?

- Oil is currently roughly 70p per litre which is about 7p per kWh.
- Electricity is averaging at 28p per kWh with some night-time tariffs at 7p.
- Oil boilers average 70% efficiency. Therefore a kWh of heat is probably more like 10p.
- ➤ Electric radiators and infrared panels are 100% efficient, while air conditioning and air source heat pumps are 300-400% efficient, meaning a kWh of heat from an ASHP is about 10p.

### How to get off oil heating

What do we use oil heating systems for?

Domestic hot water (DHW)

Space heating

### Why switch away from oil?

- The clock is ticking...regulation, carbon taxes, selling your home
- Volatile oil prices likely to keep going up from now
- Utterly at the mercy of global factors war, OPEC cartels, oil companies
- Efficiency of oil boilers versus electric heating
- Carbon emissions

### Why switch away from oil?

Do you love your oil tank really?

Indoor air pollution

Costly to maintain compared to electric options

Wet systems are actually quite inefficient

# So what can you do?

#### **Electric Hot Water**

- Smart hot water tanks
  - eg Mixergy

On demand electric hot water

Electric boilers

> Immersion heaters with super-insulated tanks

### Electric Heating

- Far Infrared Panels
  - Jigsaw Infrared
  - Herschel
- Heat Batteries
  - Sunamp
- Electric radiators
  - Sunflow
  - Rointe
- Air-conditioning and air source heat pumps

# Smarten everything!

- Smart and responsive heating controls
  - Smart TRVs and smart thermostats
  - Tado, Hive, Evohome

- More efficient radiators
  - Aluminium
  - Double-panelled
  - Jaga
  - Stelrad

# Smarten everything!

- Smart ventilation look for units with humidistat, PIR and timer
  - > MVHR
  - Aereco smart trickle vents
  - Airex smart airbricks which are easily retrofitted
  - Addvent
  - Vent-Axia
  - Blauberg

Chimney Sheep – low tech but effective!

### Reduce your heat loss

Insulation

Draught-proofing

Thermal curtains

But make sure you maintain ventilation and DON'T cover your solid walls in non-breathable paint, render or plasterboard!