



bcee

Buckinghamshire Community Energy

Owning our carbon neutral future

# Decarbonised Heating

How to get off oil and futureproof your home's heating

Show data as

Chart  Table

Frequency

Month  Quarter  Year

Time period

All  Last 10 years  Last 5 years  Custom

## Chart

RPI: Ave price - Heating oil, per 1000 litres

Pence

125,000

100,000

75,000

50,000

25,000

0

2011 JUL

2012 MAY

2013 MAR

2014 JAN

2014 NOV

2015 SEP

2016 JUL

2017 MAY

2018 MAR

2019 JAN

2019 NOV

2020 SEP

2021 JUL

2022 MAY

2023 MAR

2024 JAN

— RPI: Ave price - Heating oil, per 1000 litres

Source:

# 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!