



Isaac Delestre, IFS

# Tax policy for net zero

9 November 2021

@TheIFS



Economic  
and Social  
Research Council

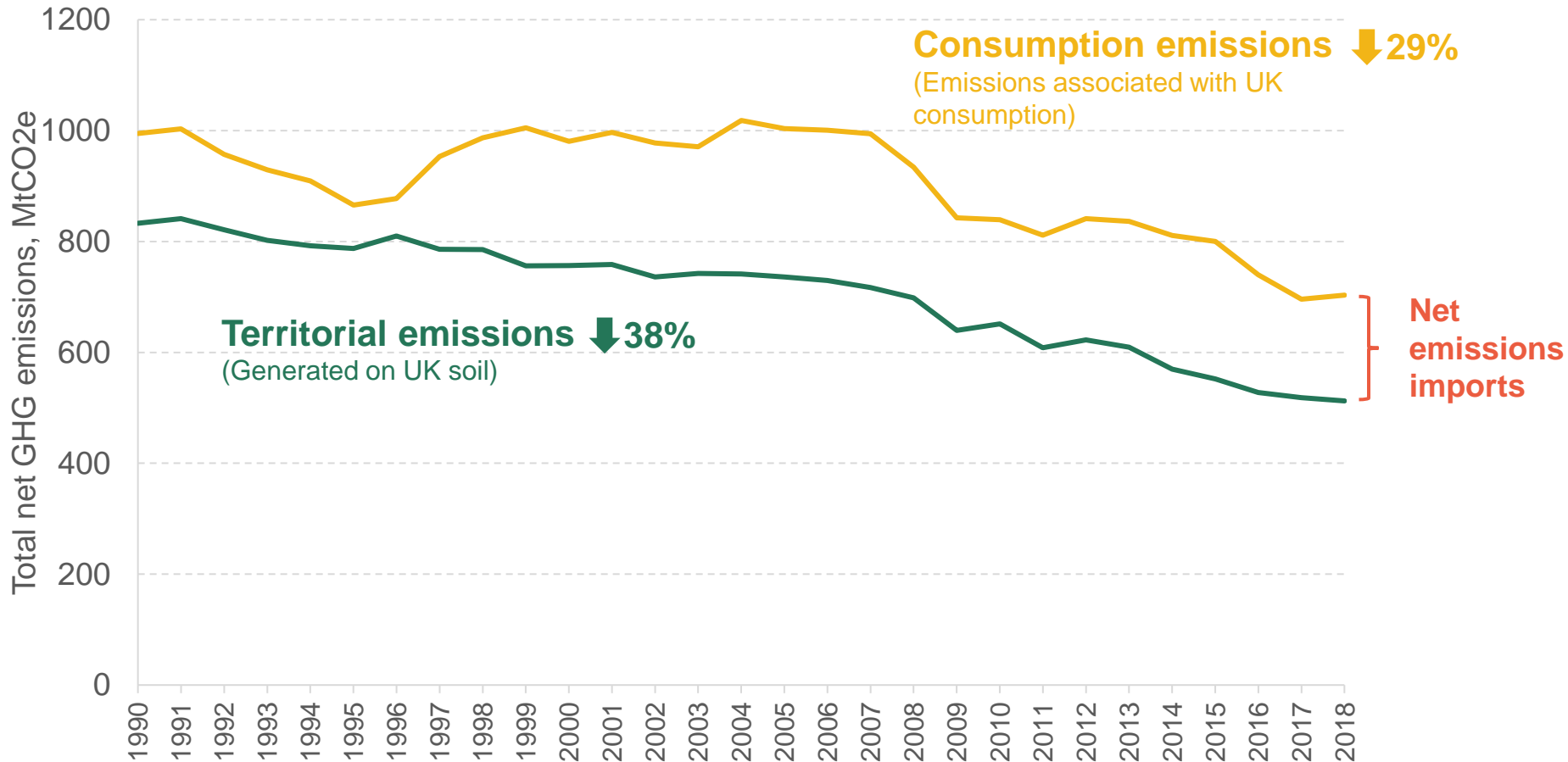
# In this talk



The UK has a target to achieve **net zero greenhouse gas emissions by 2050**.

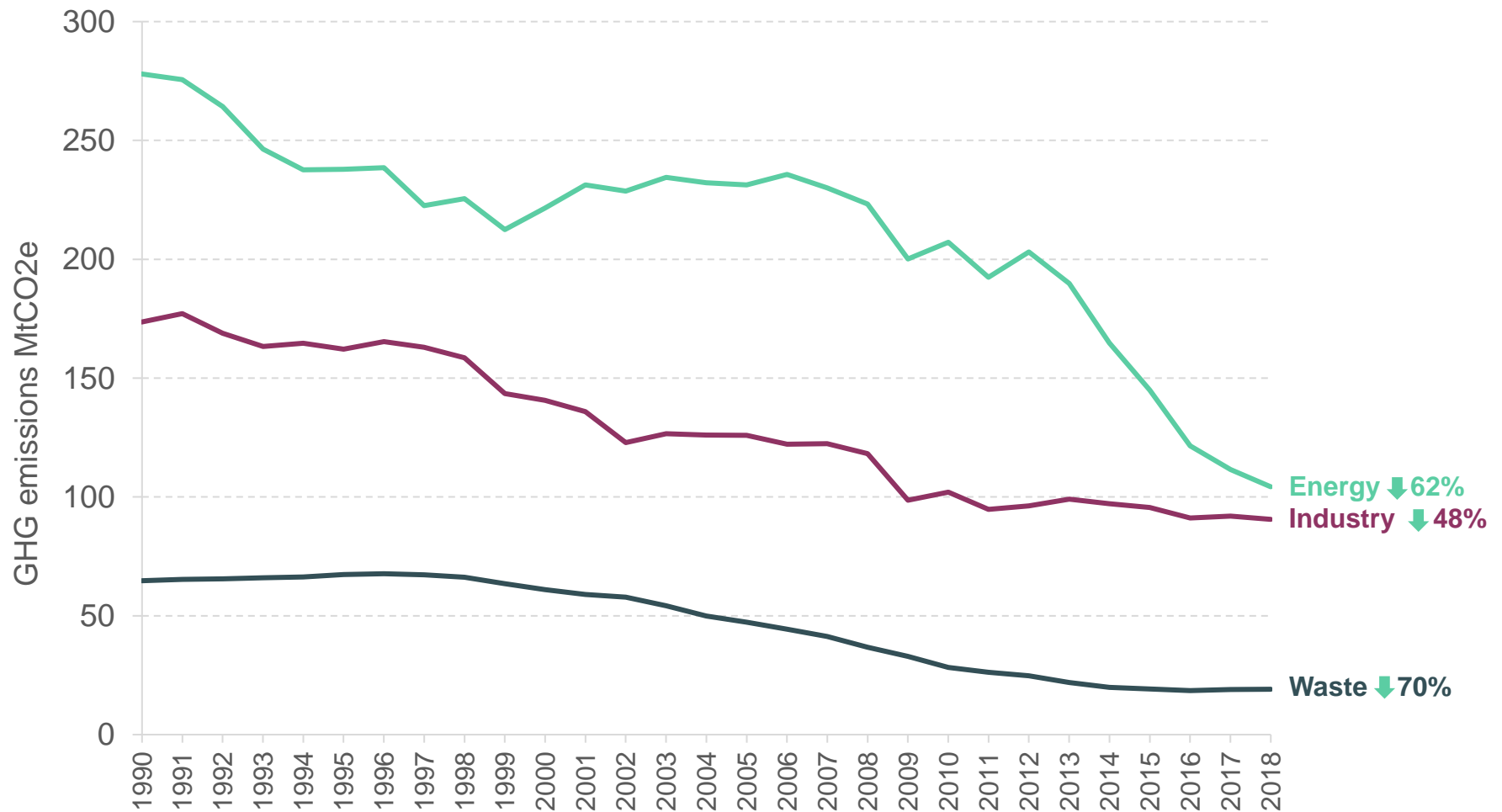
- 1. UK emissions:** how much progress has the UK made?
- 2. Taxes:** is policy creating the right incentives to reduce greenhouse gas emissions?
- 3. Challenges to come:** what hurdles will policymakers have to overcome to reach net zero?

# How much have emissions fallen?



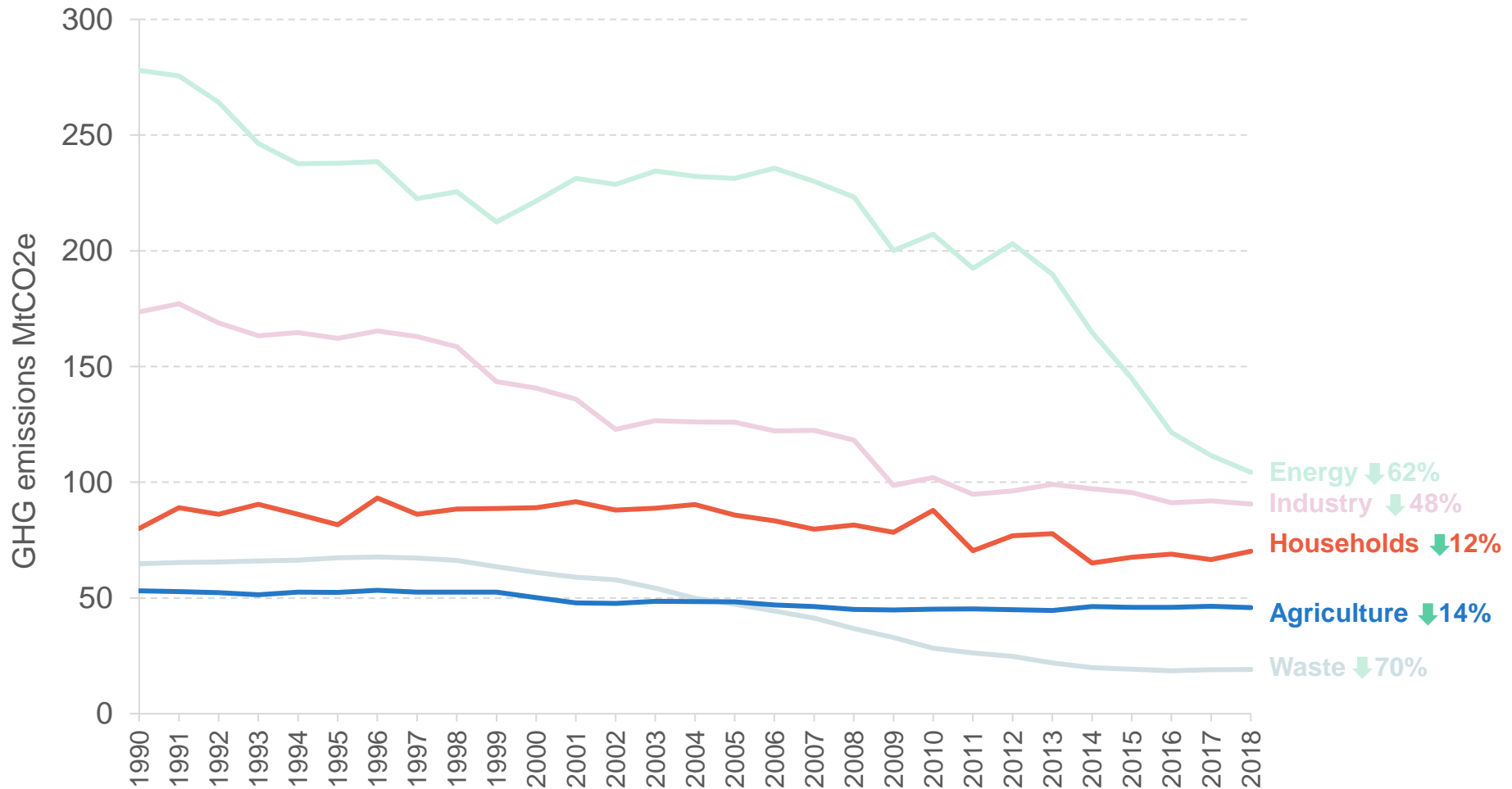
Notes and sources: see *IFS Green Budget, October 2021, Figure 8.1*

# Emissions by sector



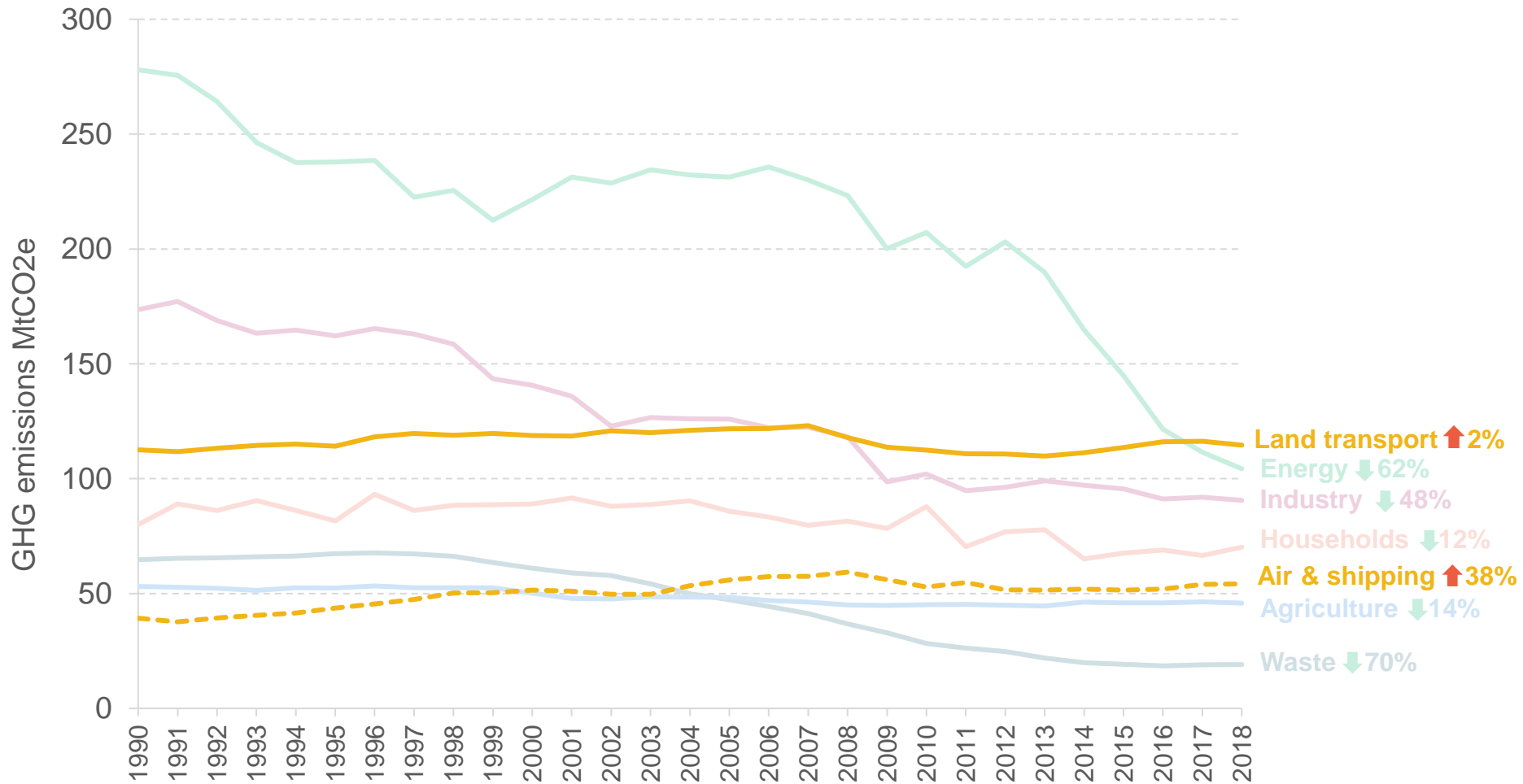
Notes and sources: see IFS Green Budget, October 2021, Figure 8.3

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# Policies shaping incentives

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# Taxing carbon in the UK

**The basic problem:** Individuals and businesses **do not face the full social costs** of the emissions they create.

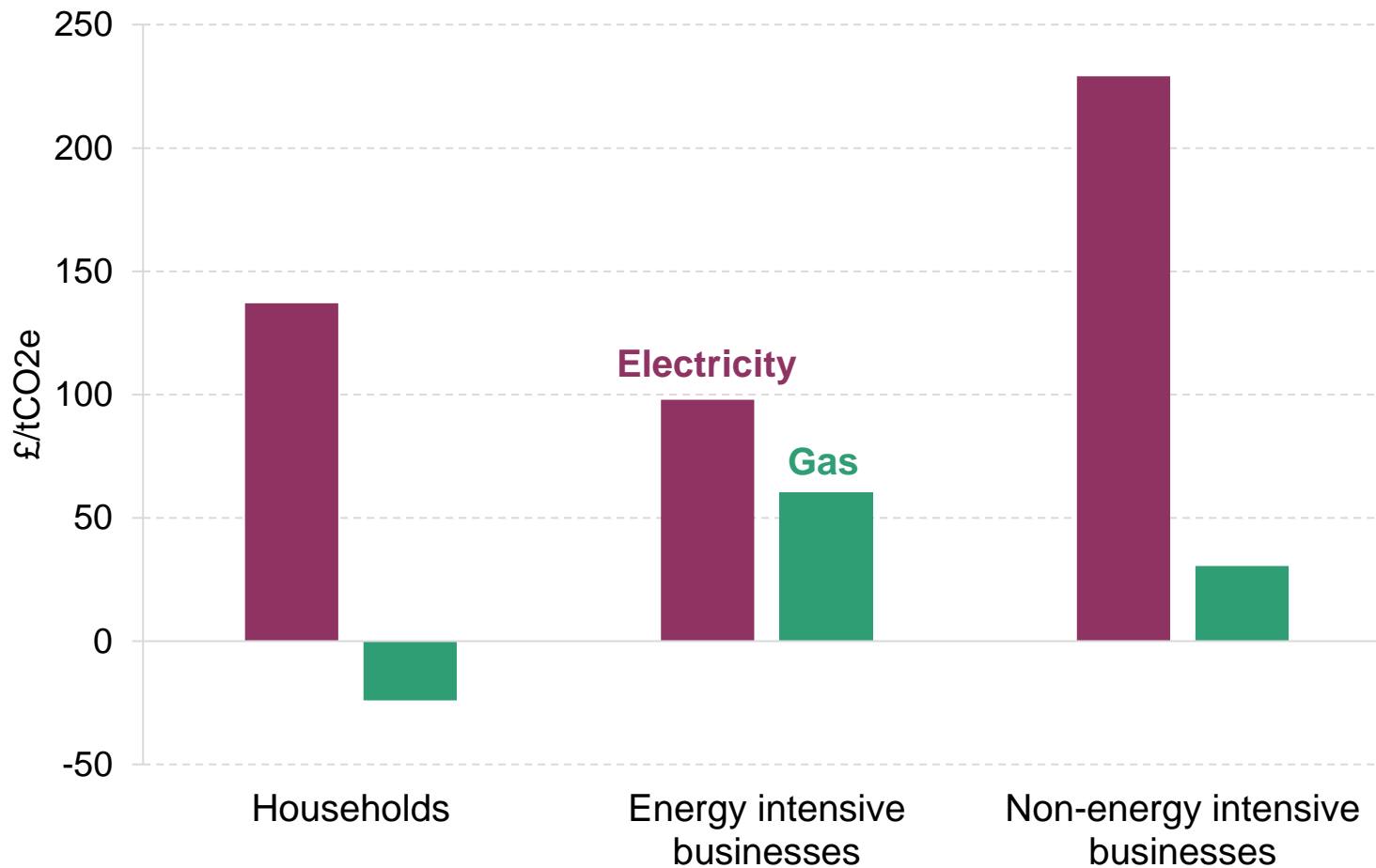
**The textbook response:** Impose a **uniform cost on producing emissions** (a 'carbon price').

Instead the UK has:

- Emissions trading scheme (only covers 29% of emissions)
  - Tax on energy consumption by businesses
  - Levies/obligations on energy suppliers
  - Taxes on individual emissions sources (fuel, landfill, aviation)
- Layered on top of a tax system that favours certain forms of consumption (e.g. reduced-rate VAT on energy bills and flights)

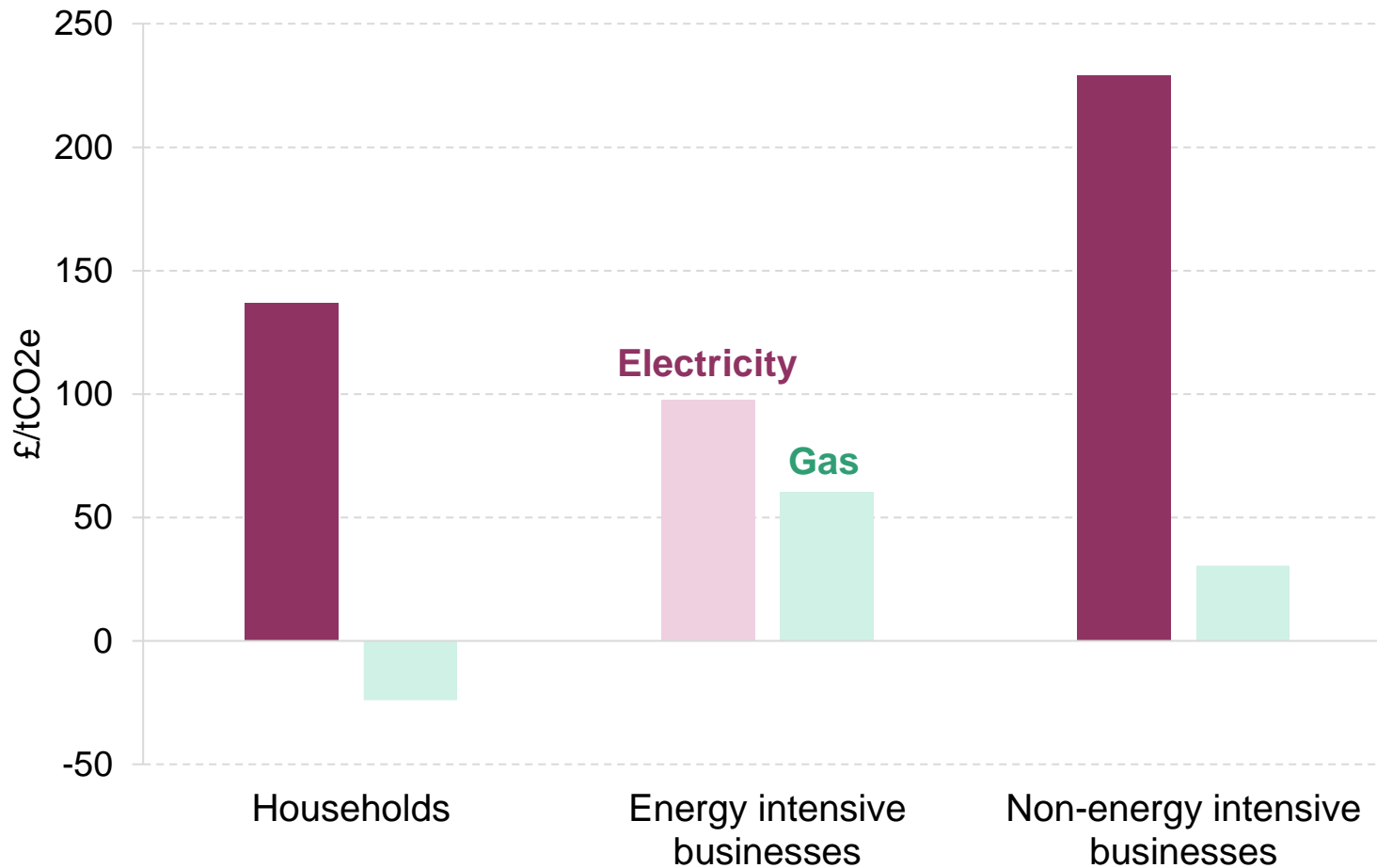


# Implicit carbon taxes on energy



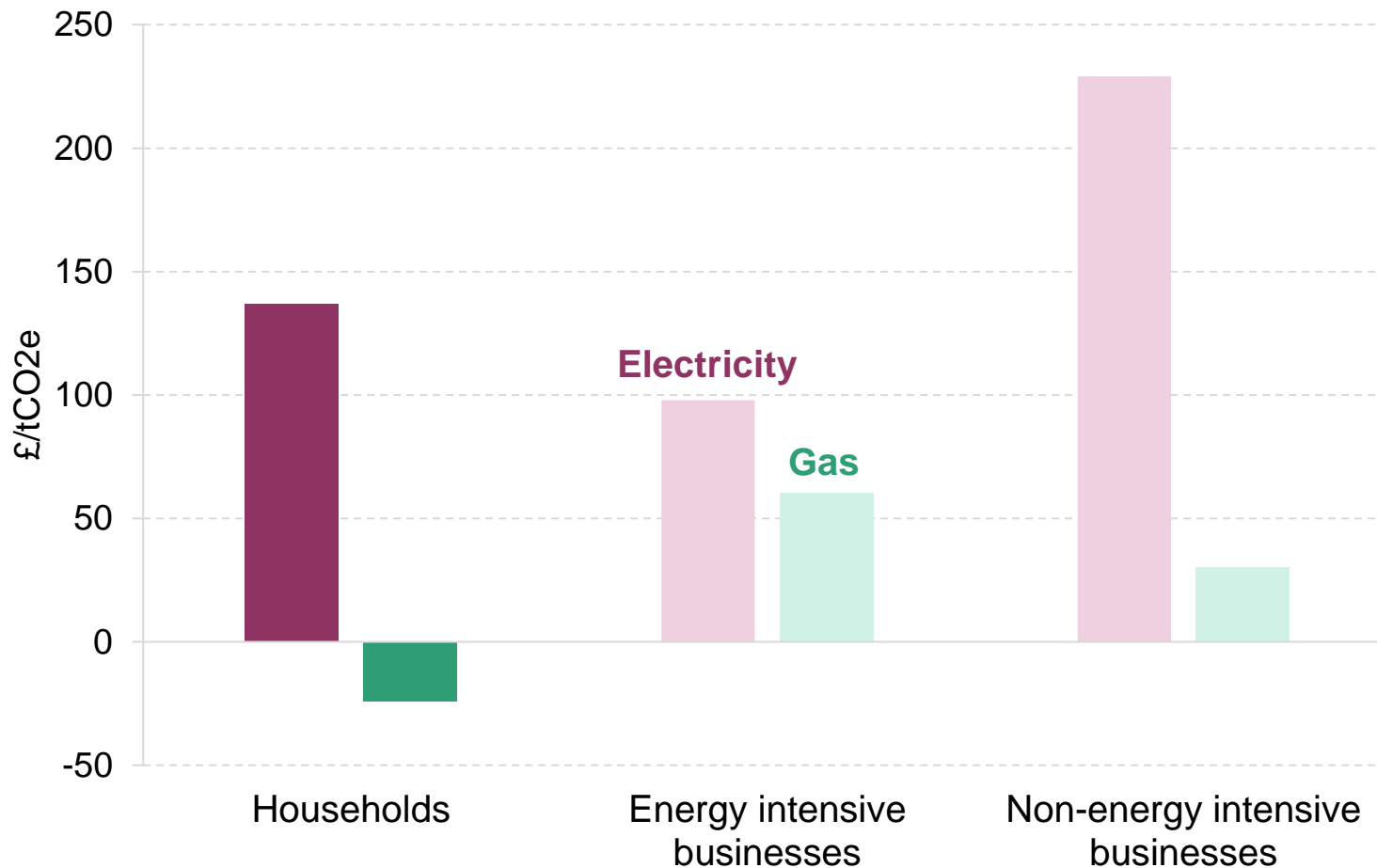
Notes and sources: see *IFS Green Budget, October 2021, Figure 8.5*. Electricity is assumed to come from gas-fired generation.

# Implicit carbon taxes on energy



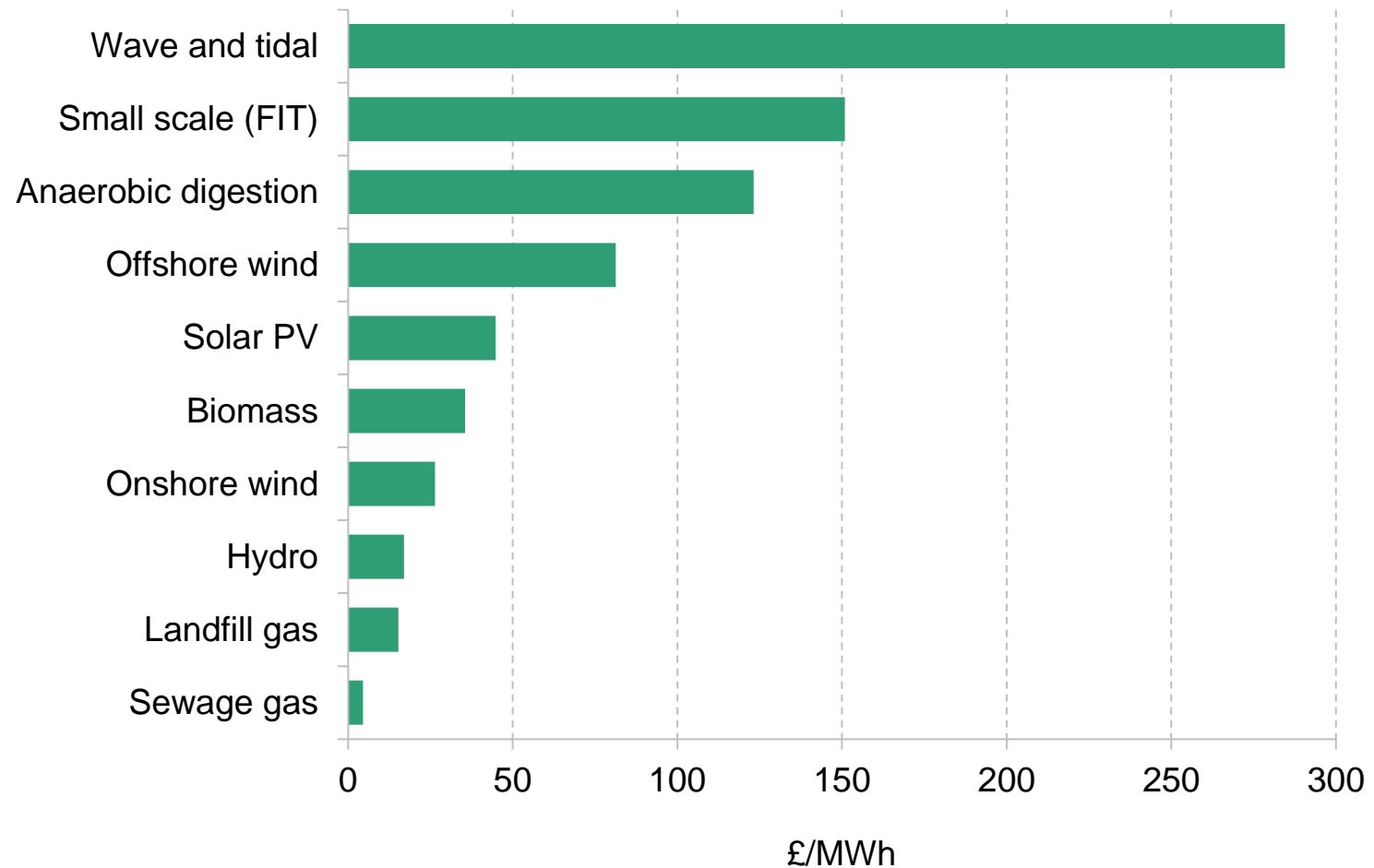
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# Implicit carbon taxes on energy



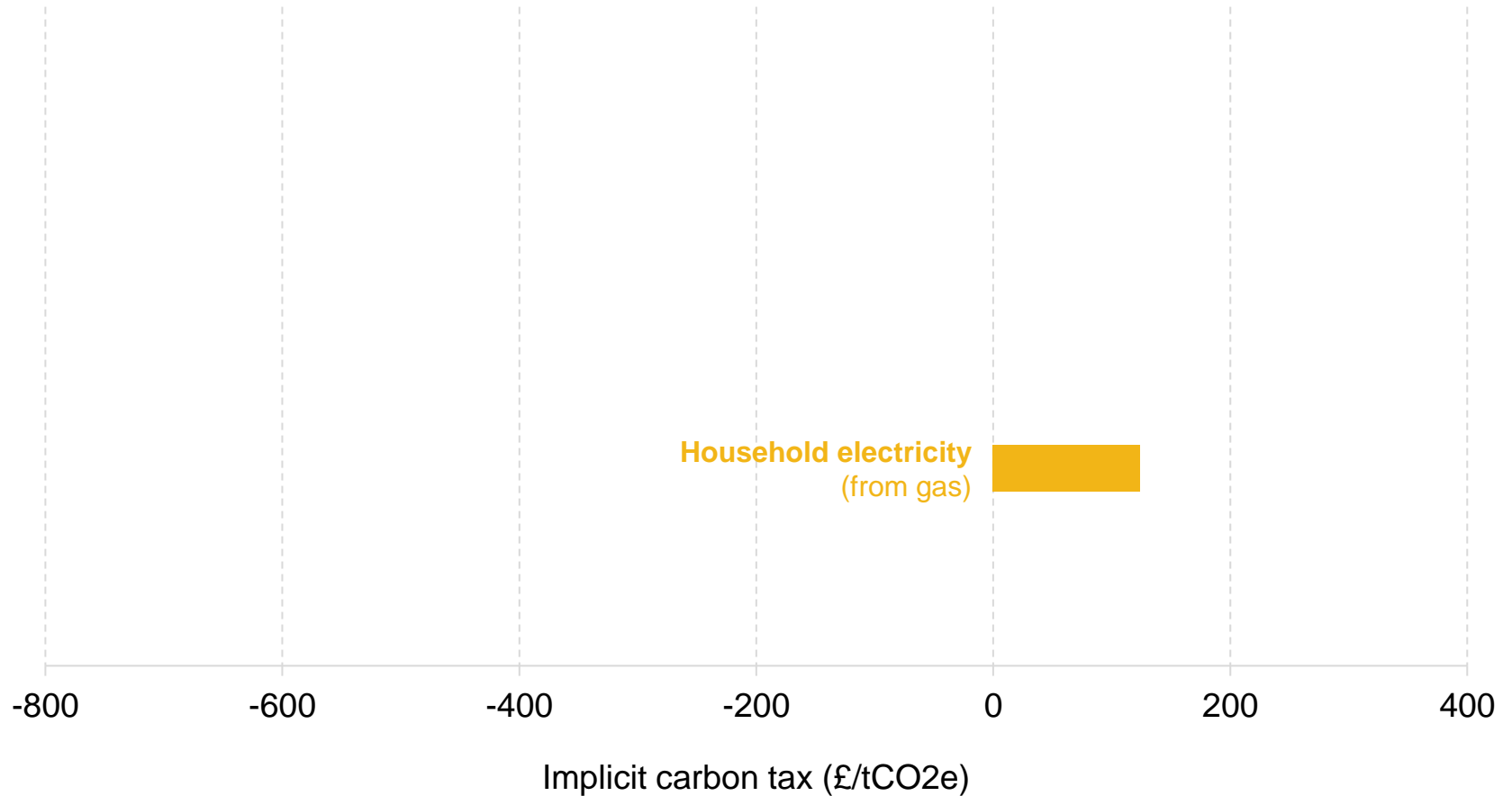
Notes and sources: see *IFS Green Budget, October 2021, Figure 8.5*. Electricity is assumed to come from gas-fired generation.

# Average net subsidies for renewable electricity



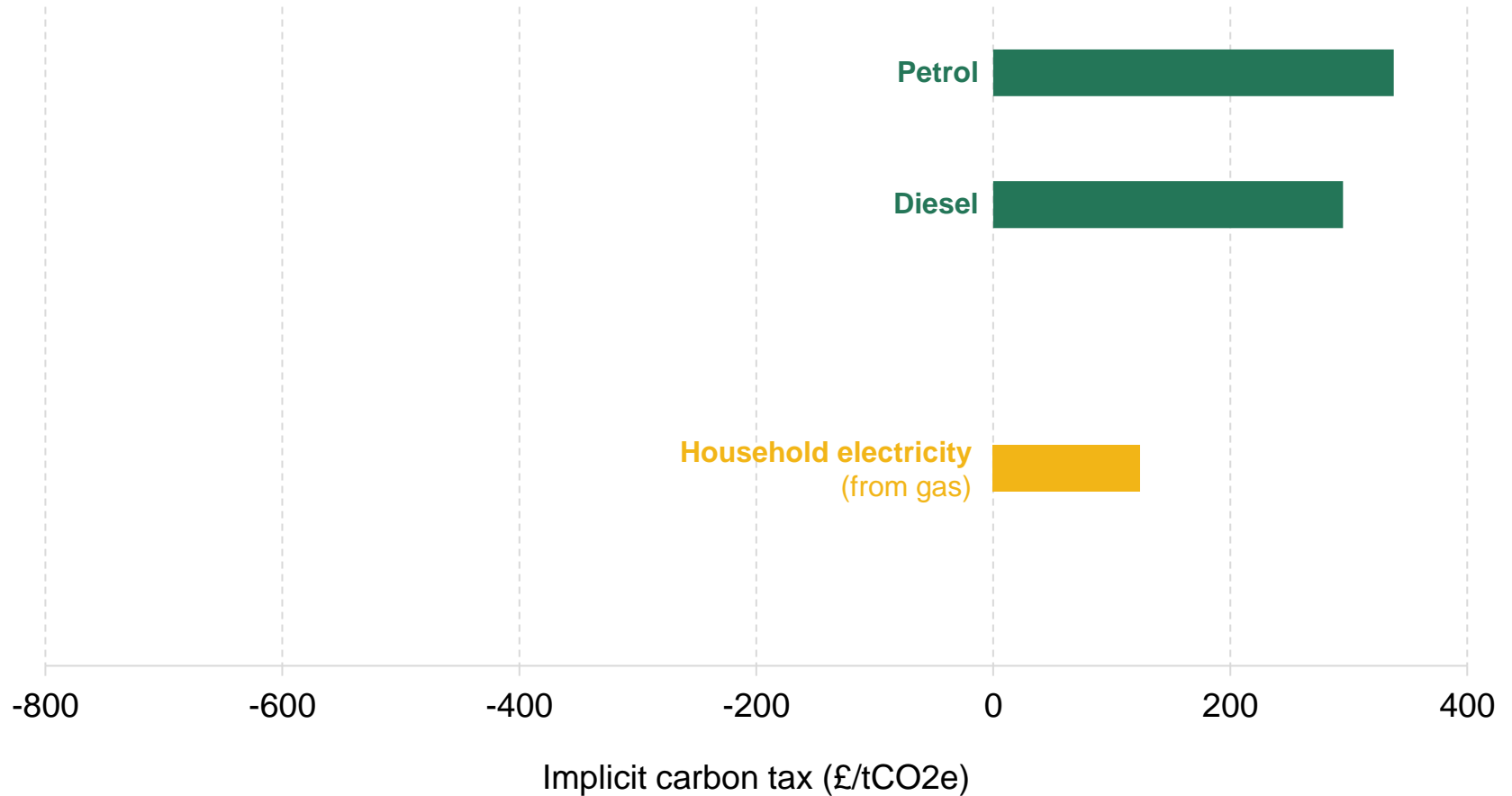
Notes and sources: see *IFS Green Budget, October 2021, Figure 8.6*

# Incentives in the transport sector



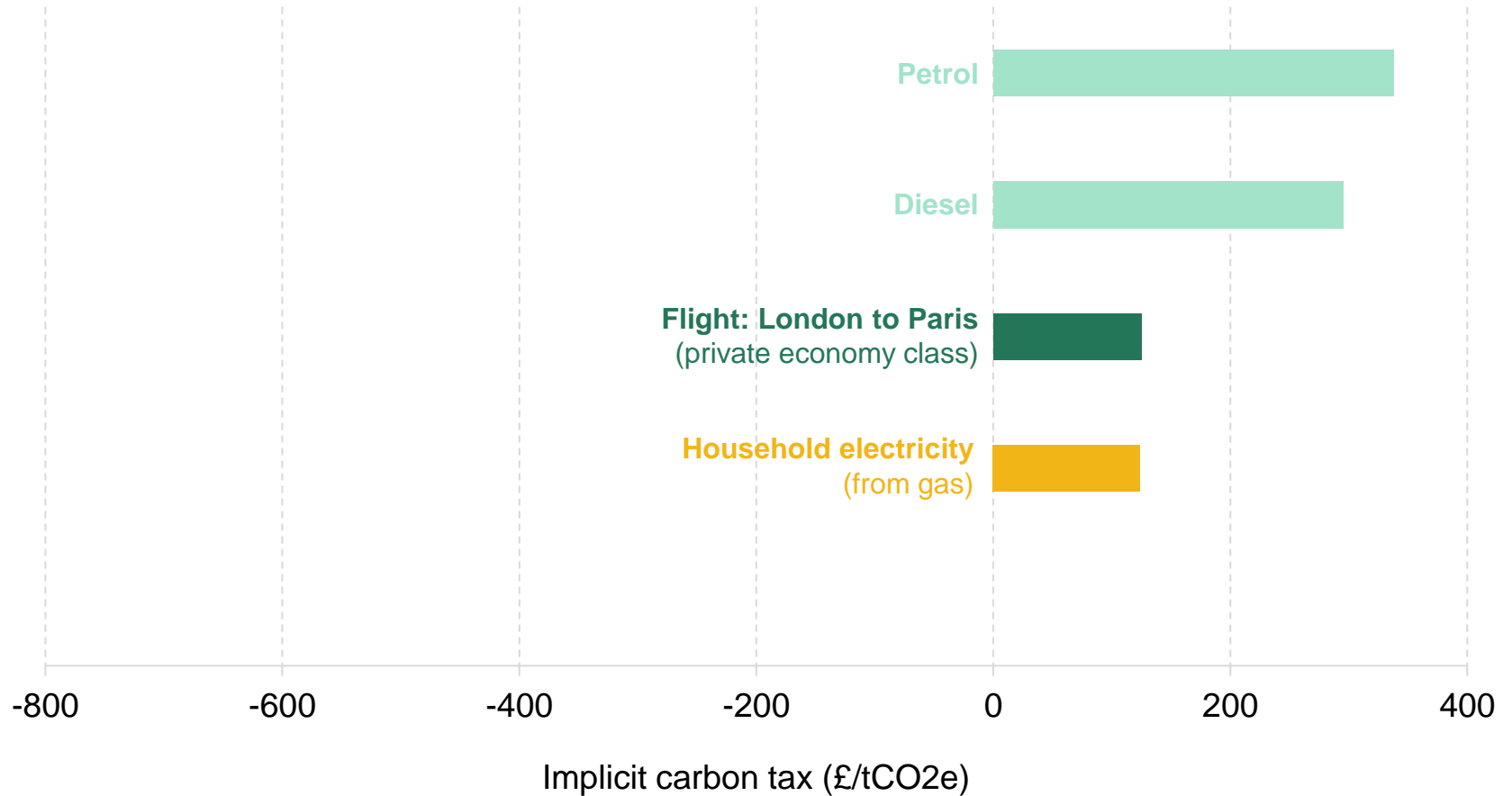
Notes and sources: see *IFS Green Budget, October 2021, Figure 8.6*

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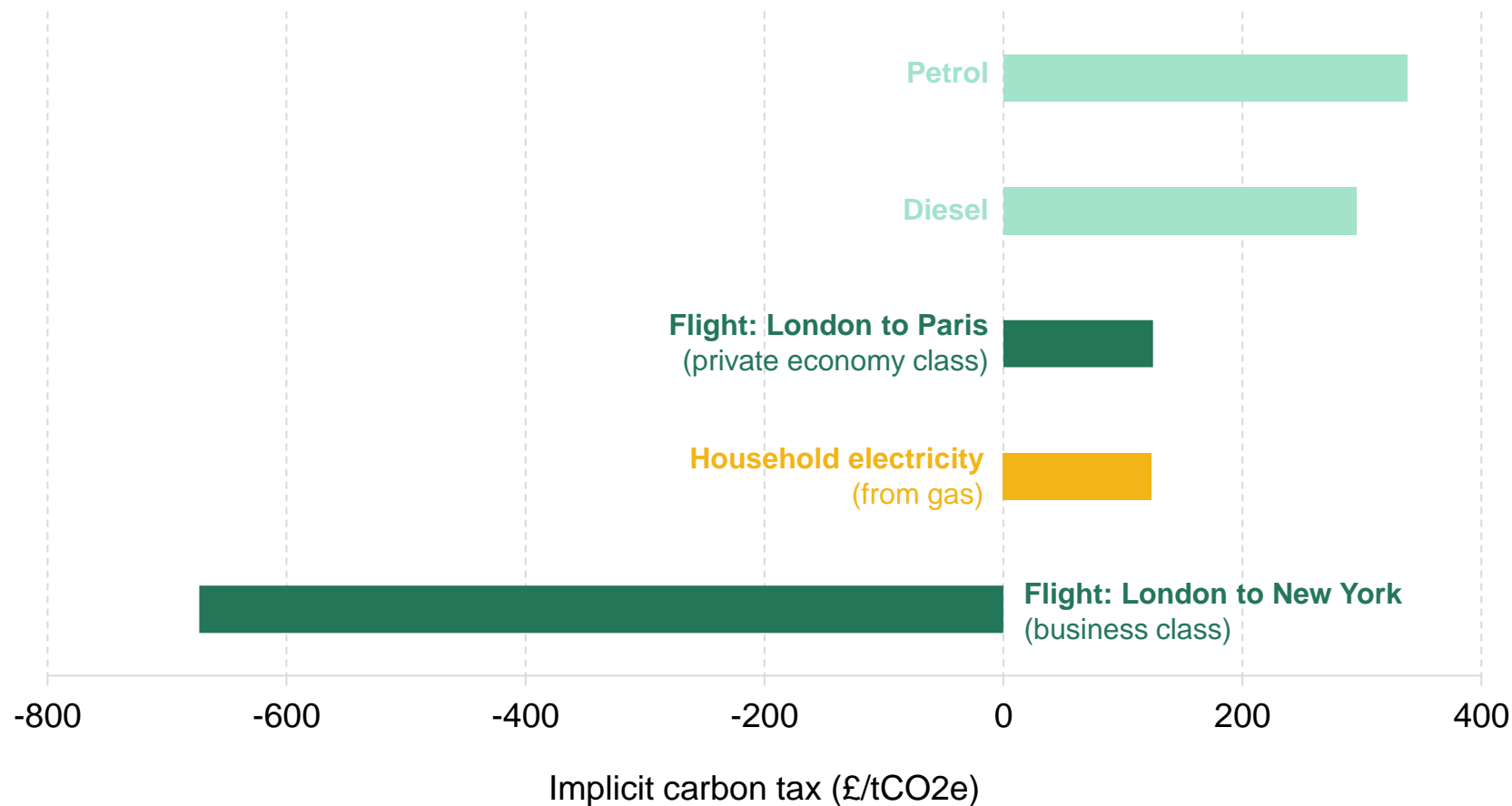
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# Taxing carbon: where next?

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# Where next?

The UK has made more progress than other G7 countries in reducing emissions, but major challenges remain:

- **Big picture:** policy is currently complex and confused. More **consistent price** (set at the right level) **on carbon should be a central priority**. Some key challenges to achieving this:
  - **International issues:** UK is a net importer of carbon. One reason for inconsistent carbon pricing is concerns that production will move overseas. Need international agreements/carbon border tax.
  - **Inequality concerns:** £1 spent by poorest households associated with 20% more carbon than richest households. Compensation packages may be needed.