

Current issues in Labour's economic policy

5. Electricity and transport

7 November 2024

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‘Put the Green New Deal at the heart of everything we do. There is **no issue more important to our future than the climate emergency**. A **Clean Air Act** to tackle pollution locally. Demand **international action on climate rights**.... **Public services should be in public hands**, not making profits for shareholders. Support **common ownership of rail**, mail, **energy** and **water**’.

- Keir Starmer pledges 3 and 5.

‘Make Britain a **clean energy superpower to cut bills**, create jobs and deliver security with cheaper, **zero-carbon electricity by 2030**, accelerating to **net zero**.’

- Manifesto p. 13

‘Labour will maintain a **strategic reserve of gas power stations to guarantee security of supply**.’

- Manifesto p. 52

Mandatory plans for the FTSE + City to align with ‘the **1.5°C goal of the Paris Agreement**.’

- Manifesto p. 57

‘A new **Energy Independence Act** will establish the framework for Labour’s energy and climate policies... Labour will create a **new publicly-owned company, Great British Energy**. It will be owned by the British people and **deliver power back** to the British people.’

‘Labour will **not revoke existing licences** and we will partner with business and workers to **manage our existing fields for the entirety of their lifespan**... We will **not issue new licences to explore new fields**... not grant new coal licences and will ban fracking for good’

- Manifesto pp. 51-53

‘Labour will support the transition to **electric vehicles** by accelerating the **roll out of charge points**, giving certainty to manufacturers by restoring the phase-out date of **2030 for new cars with internal combustion engines**.... put passengers at the heart of the service by reforming the **railways and bringing them into public ownership**.... new **powers for local leaders to franchise local bus services**, and we will **lift the ban on municipal ownership**.’

- Manifesto pp. 33-34

(1) Pledges – in summary

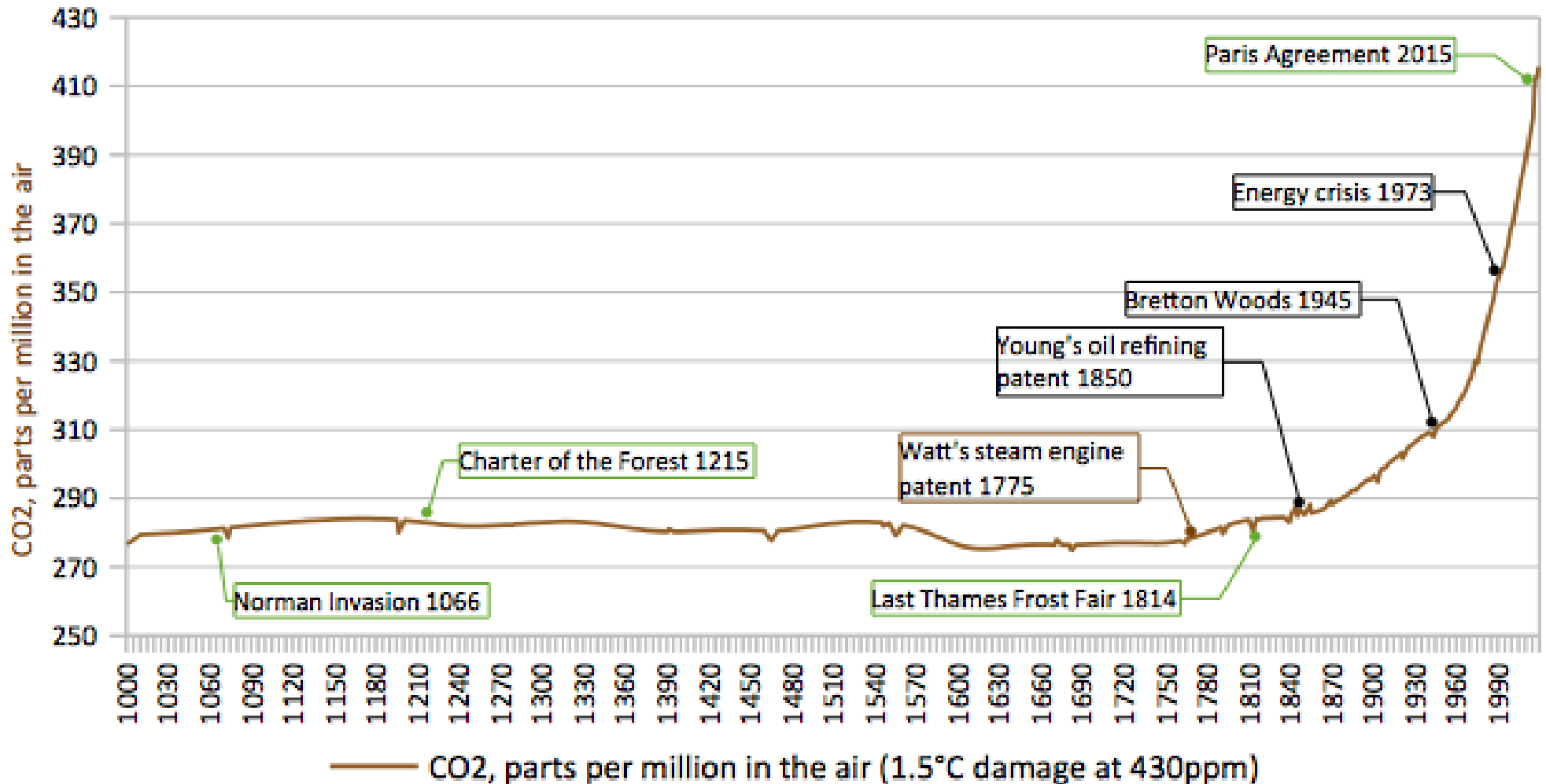
- (i) No new coal, oil, gas, ‘**international action** on climate rights’, keep ‘strategic’ gas, **Energy Independence Act**
 - (ii) **Zero carbon electricity by 2030**, public **GB Energy** to ‘deliver power’
 - (iii) Public ownership of **rail**, municipal **buses**, from **2030 all new cars electric**, electrify roads, a **Clean Air Act**
- (2) Human rights (3) Legal background (4) International rank, data (5) Reform models (6) Benefits, costs

(2) Human rights

- ‘**Everyone has the right to life...**’ Universal Declaration art 3, also European Convention on Human Rights article 2, etc
- The right to life in ECHR art 2 (and art 8) puts a positive **duty on member states to reduce emissions** under the UN Framework Convention on Climate Change. So ‘the **State’s primary duty is to adopt, and to effectively apply** in practice, regulations and measures capable of **mitigating the existing and potentially irreversible, future effects of climate change.**’ *Klimaseniorinnen v Switzerland* [2024] ECHR 304, [545]
- ‘Everyone has the right... to **share in scientific advancement and its benefits.**’ Universal Declaration of Human Rights 1948 art 27. Also ICESCR 1966 art 15(1)(b)
 - e.g. **solar, wind, battery** power; **electric vehicles**; clean steel

Carbon emissions 1000 AD to 2020

Sources: US EPA, Atmospheric Concentrations of Greenhouse Gases, and www.co2.earth/daily-co2



0.028% CO₂ in air in 1775 -> 0.0424% (or 424ppm) in 2024

We've already reached 1.5 degrees of global warming

NEWS

Business

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World's first year-long breach of key 1.5C warming limit

8 February · 3129 Comments

COP28



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The 1.5-degree celsius global warming threshold: Could it be breached in 2024?

In Focus

The 1.5-degree celsius global warming threshold: Could it be breached in 2024?

Published Friday, 12 January, 2024

In Focus Environment Foreign Policy

James Goddard

COP29 | Sustainable Markets | Climate Change

Climate change: UN report says planet to warm by 3.1 C without greater action

By Gloria Dickie

October 24, 2024 10:44 PM GMT+1 · Updated 5 days ago



Summary

- Current policies could lead to 3.1 C warming by 2100
- Nations to discuss updated emissions strategies at COP29 in Azerbaijan
- 1.5 C target likely out of reach without climate overshoot

UN warns 1.5C climate goal 'will soon be dead' without rapid emissions cut

ENVIRONMENT

World leaders are running out of time to stave off catastrophic climate change, Secretary General Antonio Guterres warned on Thursday as a UN report said current climate policies will result in global warming of more than 3 degrees Celsius by the end of the century – more than twice the rise agreed to nearly a decade ago in Paris.

Issued on: 24/10/2024 - 18:07

4 min

By: NEWS WIRES



So “credible” 1.5 degree plans mean ending gas, oil + coal now

(3) Legal background

- (a) Oil, gas, coal laws + BP, Shell, Glencore
- (b) Electricity generation and distribution
- (c) Road regulation
- (d) Bus and rail regulation

(a) Gas, oil and coal

- Gas, oil and coal companies require **licences to drill** or mine from the Secretary of State, delegated to North Sea Transition Authority (ex Oil and Gas Authority) or Coal Authority: EA 2016 s 1, Coal Industry Act 1994 s 1.
- **Duty on government to reduce GHG by 100% by 2050**, 5 year carbon budgets: Climate Change Act 2008 ss 1-10
 - 4th, 2023-27, **1950 MtCO₂e**, SI 2011/1603
 - 5th, 2028-32, 1725 Mt, SI 2016/785. **In 2023, 384Mt already!**
 - 6th, 2033-37, 965 Mt, SI 2021/750.
- OGA/NSTA ‘principal objective’ to ‘maximise economic recovery of petroleum’: Petroleum Act 1998 s 9A
- Secretary of State may give NSTA directions ‘necessary in the interests of national security’ or ‘public interest’ if ‘circumstances are exceptional’: PA 1998 s 9

Gas, oil, coal companies have externalised and evaded liability for climate damage, until now...

- *Lluya v RWE AG* (2015) Case No. 2 O 285/15, melting glacier in Peru, flooding village. Lluya sued RWE in tort, as it **created 0.47% of historic GHGs, for 0.47% flood defence costs**. Upper State Court assessing evidence that there is liability, till next year...
- *Smith v Fonterra Co-Operative Group Ltd* [2024] NZSC 5, Smith claimed subsidiaries of Exxon, BP, JP Morgan, Invesco, etc were liable in negligence, private nuisance and public nuisance for damage to his coastal property. **Supreme Court allowed case to go to trial for nuisance, negligence liability for damage**, rejecting that damage not foreseeable, lacking proximity or too small.
- *Milieudefensie or Friends of the Earth v Royal Dutch Shell plc* (2021) alleged that under the Dutch Civil Code, Book 6, s 162(2), **failure to follow Paris Agreement was a tort, taking account of ECHR arts 2 and 8. Hague District Court held Shell had a duty to cut emissions 45% by 2030** (scope 1-3). Immediate action needed. Dropped **'Royal Dutch' + moved HQ to London**.



ANNUAL REPORT

Royal Dutch Shell plc
Annual Report and Form 20-F
for the year ended December 31, 2016

Winding up in the public interest

- The Secretary of State can petition the court if it appears to be **‘expedient in the public interest that a company should be wound up’** and ‘if the court thinks it **just and equitable**’: Insolvency Act 1986 s 124A. This must follow:
 - a report of a **‘company investigation’** appointed by SS on **application of 200+ members**, with good reason for requiring the investigation, £5000 security (s 431(2)(a)), or by **Secretary of State**, s 432(2) if (a) company’s affairs conducted **‘for a fraudulent or unlawful purpose’** (c) managers guilty of fraud, misconduct towards it or members (d) not all info members might reasonably expect: Companies Act 1985 ss 431-453D
 - a report of inspectors under the Financial Services and Markets Act 2000 ss 165-75 or 284, showing e.g. money-laundering, terrorist financing.
 - info from fraud investigations: Criminal Justice Act 1987 s 2
 - info to assist overseas regulators: CA 1989 s 83
- **Not yet used for fraud or unlawful purpose relating to climate damage, e.g. companies run with the purpose of violating Paris Agreement.**

Shell, BP, Exxon: Seized emails reveal 'deceptive' climate tactics and greenwashing



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By [Charlotte Elton](#)

Published on 23/09/2022 - 12:24 GMT+2

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Shell

 This article is more than 7 months old

Shell waters down emissions cut pledge despite crucial climate decade

Energy company now says it aims for 15-20% reduction by 2030, rather than previous target of 20%

Oil giant Shell accused of 'greenwashing' and misleading investors



Analysis by [Maxine Joselow](#)
with research by [Vanessa Montalbano](#)

February 1, 2023 at 8:03 a.m. EST



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Exclusive: BP abandons goal to cut oil output, resets strategy

By [Ron Bousso](#)

October 7, 2024 11:28 AM GMT+1 · Updated a month ago



ARTICLE | FEB. 1, 2023

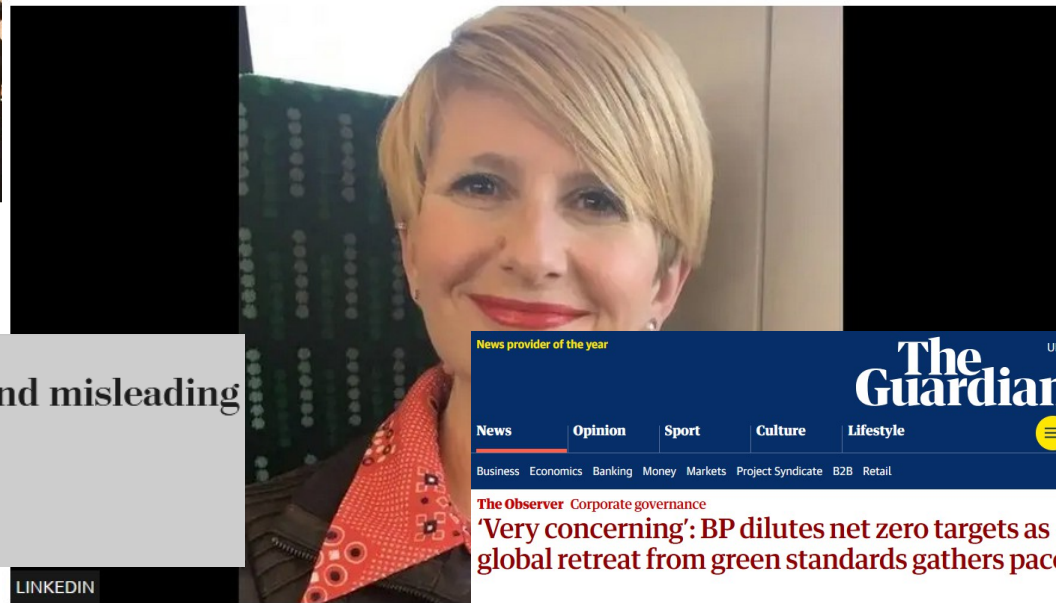
Shell faces groundbreaking complaint for misleading US authorities and investors on its energy transition efforts

Shell consultant quits and accuses firm of 'extreme harms'

🕒 25 May 2022




Climate




LINKEDIN

| Caroline Dennett, who has quit as a safety consult

By [Annabelle Liang](#)

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The Observer Corporate governance
'Very concerning': BP dilutes net zero targets as global retreat from green standards gathers pace

The oil giant's new focus on fossil fuels signals another defeat for environmental, social and governance aims and has angered campaigners



(b) Electricity generation, transmission, distribution

- **Ofgem** appointed by Secretary of State to **licence generators** – **no licence needed below 50MW** w/‘net capacity’ under 100MW: Utilities Act 2000 s 1. Electricity Act 1989 s 5.
- To spur building **wind turbines etc**, the Low Carbon Contracts Co Ltd, is a designated ‘CfD’ body, paying difference to market prices + sum predicted to attract investors: Energy Act 2013 s 7
- Ofgem has duty for ‘**reduction of electricity-supply emissions of targeted greenhouse gases**’: EA 1989 s 3A; but merely ‘net zero... and five-year carbon budgets’ under Gas Act 1986 s 4AA
- **Duty on National Grid plc to connect**, Electricity Act 1989 s 7(3C) and ‘indep. systems operator’: Energy Act 2023 s 161 ff
- Big 6 distribution/retail companies are shareholder controlled.

2018: 49.9MW solar farm, Branston, Lincs, powers 15k homes, 94 ha, 0.94 km²



CCC:

75-90GW more
solar needed

= 1500 of these
for 75GW = 0.4
to 0.6% of UK
land

Land can still be
grazed or
farmed. Called
'agrivoltaics'.

(c) Road regulation

- Biggest UK car manufacturers – Nissan, JaguarLandRover (Tata), BMW AG, Toyota, Stellantis NV. Indian, Japanese law (control by shareholders), German law (also workers on board), Dutch (?).
- Secretary of State has **power to make ‘large fuel retailers’ and ‘service area operators’ install EV chargers**; SS must consider regs on request by a **mayor**: Auto and Electric Vehicles Act 2018 ss 11-12
- **Tax deductions for business vehicles may include fossil fuel vehicles** (not just electric): Capital Allowances Act 2001 s 104AA
- **Taxis/private hire need licences** to operate: Met Public Carriage Act 1869 ss 6-9. Town Police Clauses Act 1847 ss 1. Private Hire Vehicles (London) Act 1998 ss 1-13 (minicabs). TA 1985 ss 10-17.

(d) Bus and rail regulation

- **Office of Rail and Road appointed by SS**, duty of sustainable develop:
Rail and Transport Safety Act 2003 ss 15-16. RA 1993 s 4
- **Bus networks have to be licenced by a Transport Authority:**
Transport Act 1968 ss 9-9A. GLA Act 1999 ss 141-188.
- **Bus networks cannot be publicly owned** with limited exceptions
(London, Manchester, Scotland): Bus Services Act 2017 s 22
- **Train operating companies cannot be in UK public ownership**, unless
after insolvency: Railways Act 1993 s 25
- **Network Rail Ltd owns the tracks after Railtrack plc went insolvent:**
Railways Act 1993 ss 8 (licensing of railway assets) and 59-60
(administration orders)

(4) International rank and data

(a) UK emissions: domestic vs global

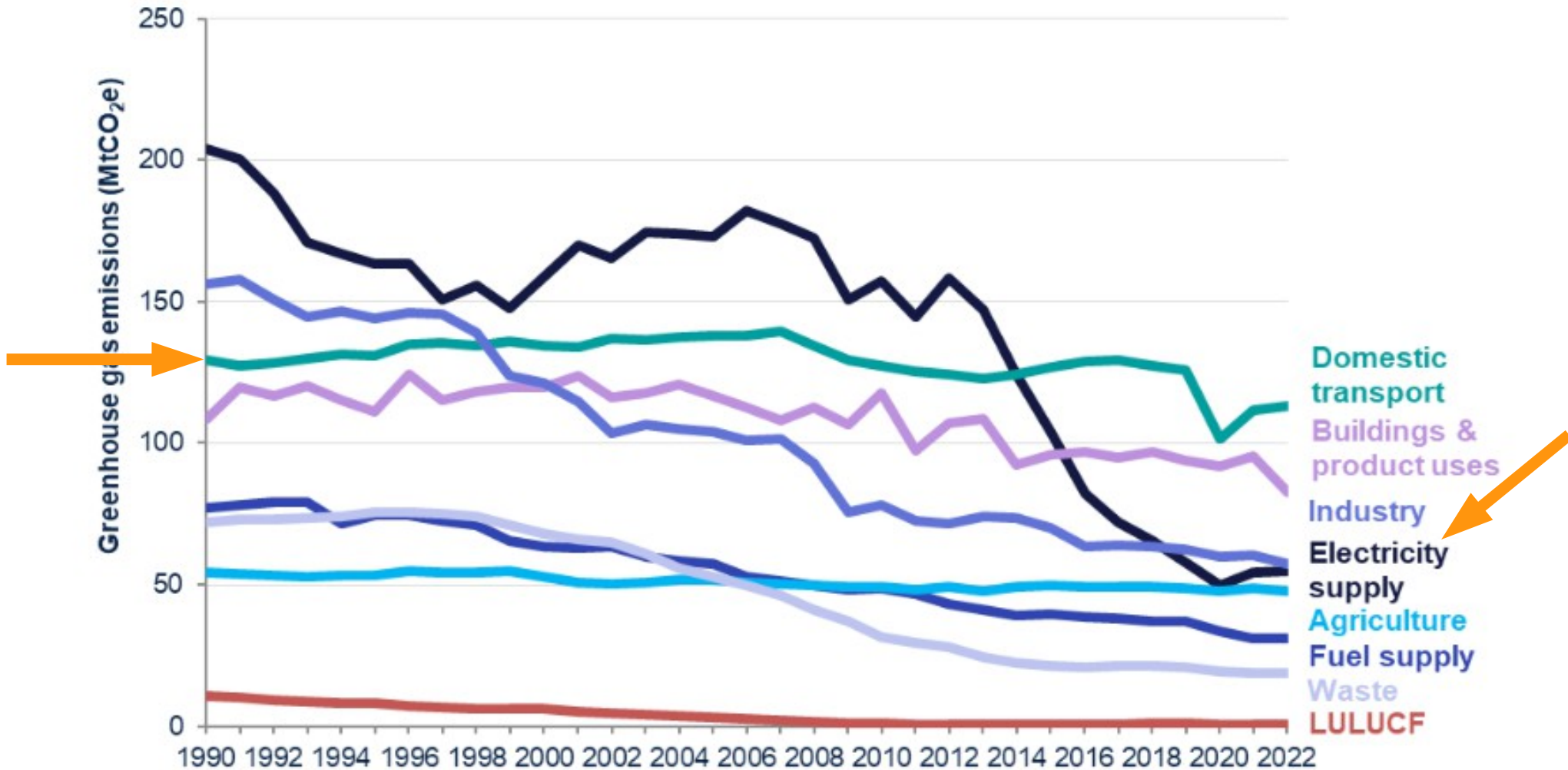
(b) UK electricity prices vs OECD

(c) Vehicle makers and roads

(d) Bus and rail cover, price, electric

(a) UK emissions seem to fall: 384 MtCO₂e in 2023

Figure 6: Territorial UK greenhouse gas emissions by NC sector, 1990-2022 (MtCO₂e)



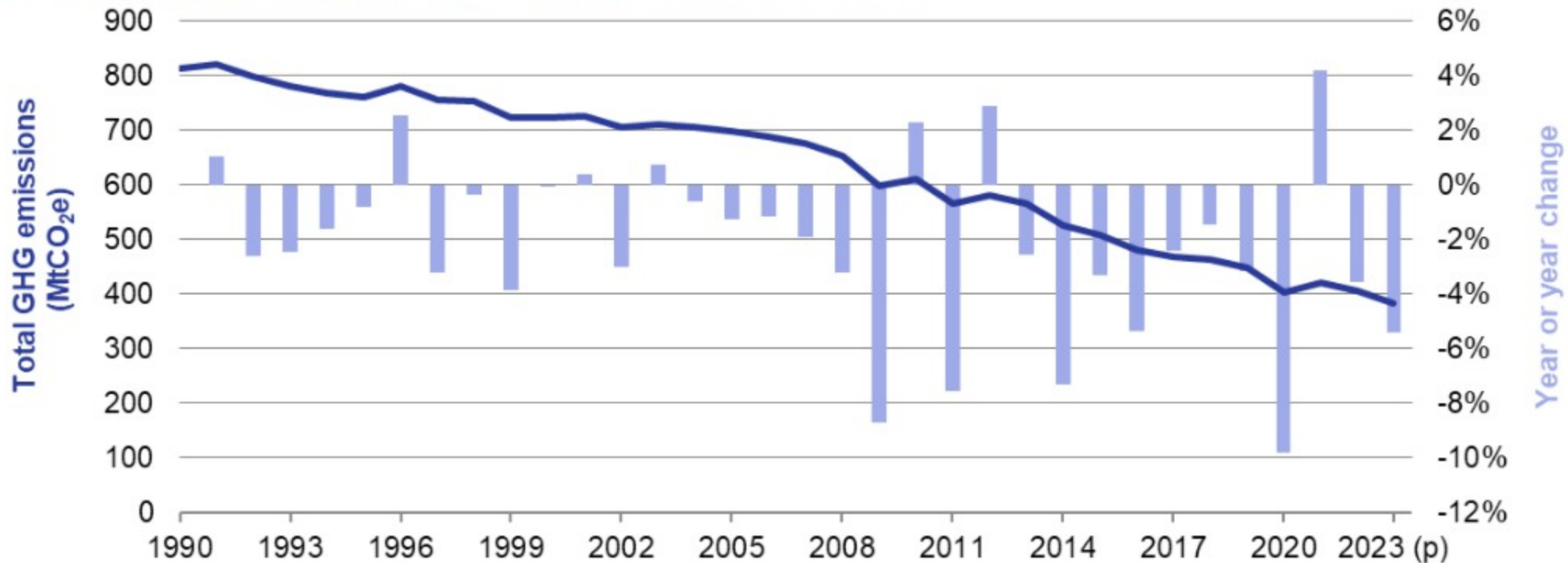
Source: Table 1.2, Final UK greenhouse gas emissions national statistics 1990-2022 Excel data tables

Note: LULUCF is land use, land use change and forestry.

Domestic emissions exclude (1) our companies abroad, (2) imports

UK territorial emission down from 800 to 384 MtCO₂e.

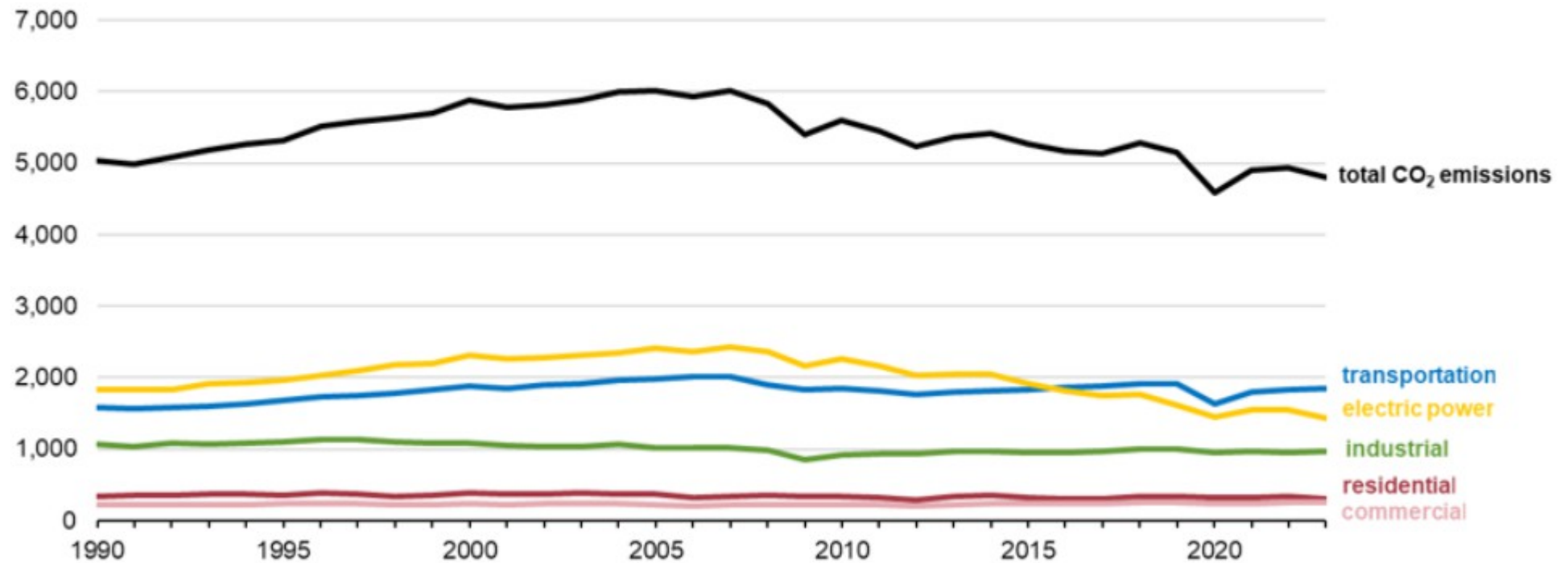
UK territorial greenhouse gas emissions, 1990-2023



But 'territorial' emissions exclude (1) **our companies abroad**, (2) **finance abroad**, (3) **imports**. We control all three.

Figure 1. U.S. energy-related CO₂ emissions by sector, 1990–2023

million metric tons of carbon dioxide



eia Data source: U.S. Energy Information Administration, *Monthly Energy Review*, March 2024, Tables 11.1–11.6

Global emissions 2023: **China 30.1%**, **US 11.2%**, **India 7.8%**, **EU/UK 6.7%** = **55.8%**

FTSE 100 top 3 fossil fuel polluters = x 13 UK emissions

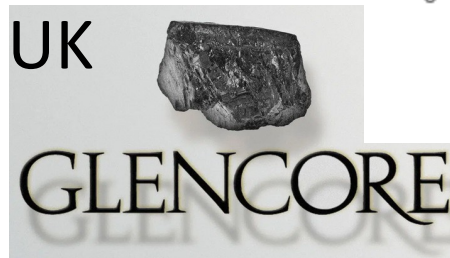
- (1) BP's global emissions are 2429 megatonnes of CO₂e annually, 632% of the UK's total emissions.



- (2) Shell's global emissions are 1653 megatonnes of CO₂e annually, 430% of the UK's total emissions.



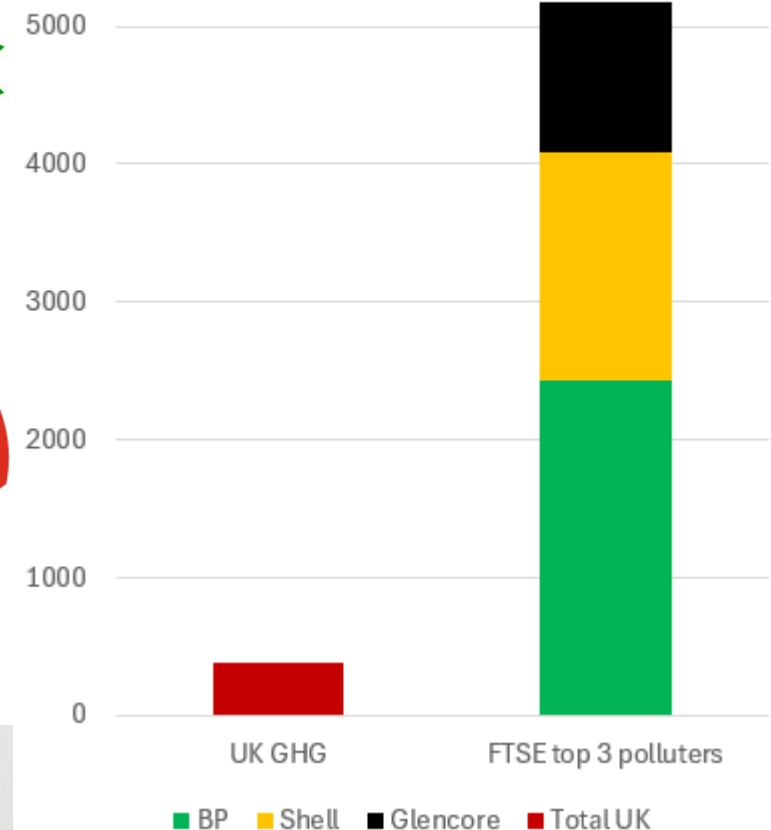
- (3) Glencore's emissions: 1,087 Mt CO₂e pa 282% of UK



- = **5,169 Mt CO₂e**

- ... **384 Mt CO₂e = UK total**

UK vs FTSE 100 greenhouse gas emissions: MTCO₂e (2023)





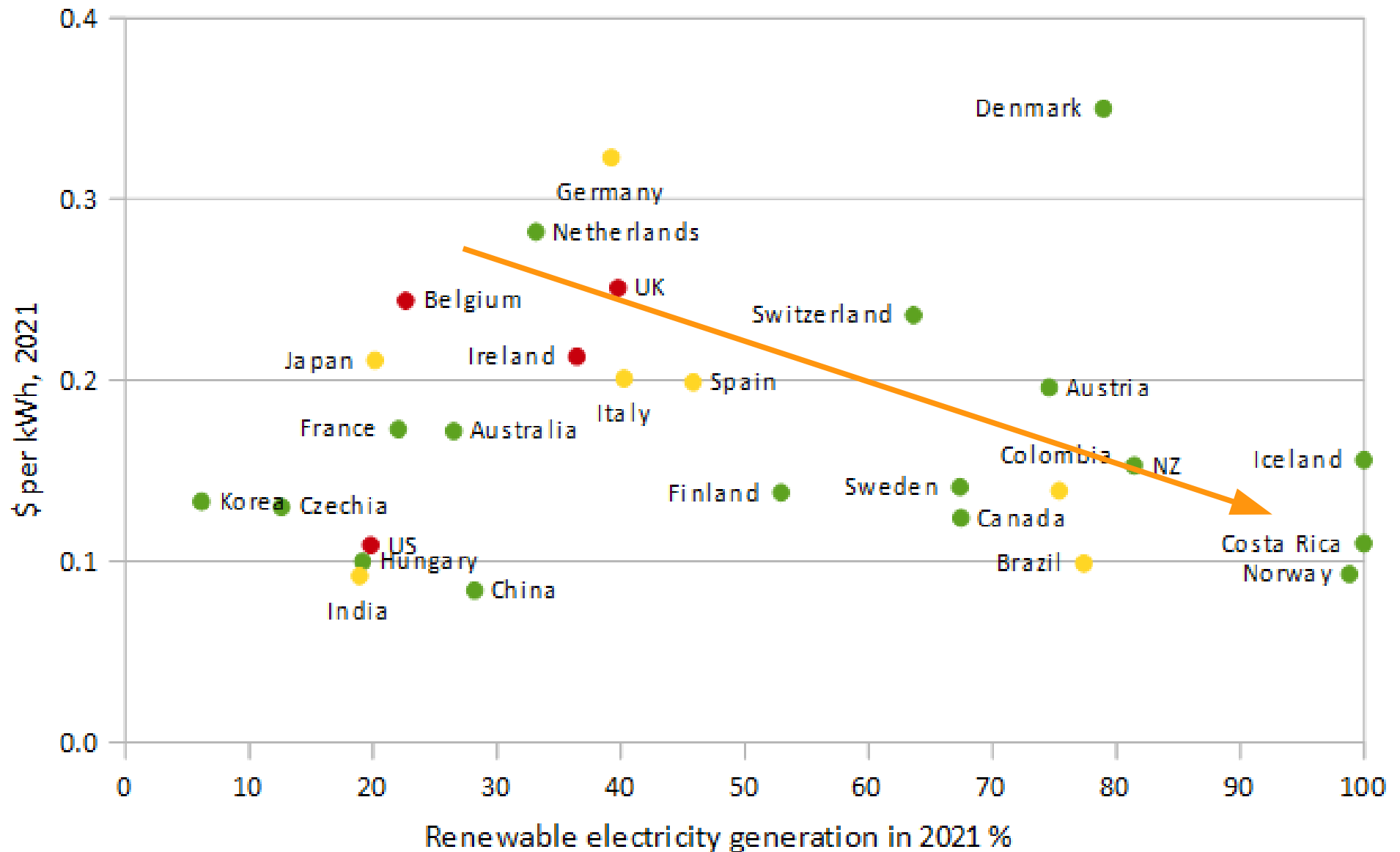
- DONG Energy, 85%+ revenue from coal, oil, gas
- 2009, transformed to 85% renewable target by 2040
- 2014, sold minority stake to fund offshore wind
- 2017, changed name to **Ørsted**, sold oil/gas to Ineos
- 2019, 86% renewable already, 21 years ahead
- World's largest offshore wind producer

(b)

Renewable electricity % and price (2021)

IRENA, Renewable energy share of electricity generation (2021).

Cable, The price of electricity per kWh in 230 countries (2021)

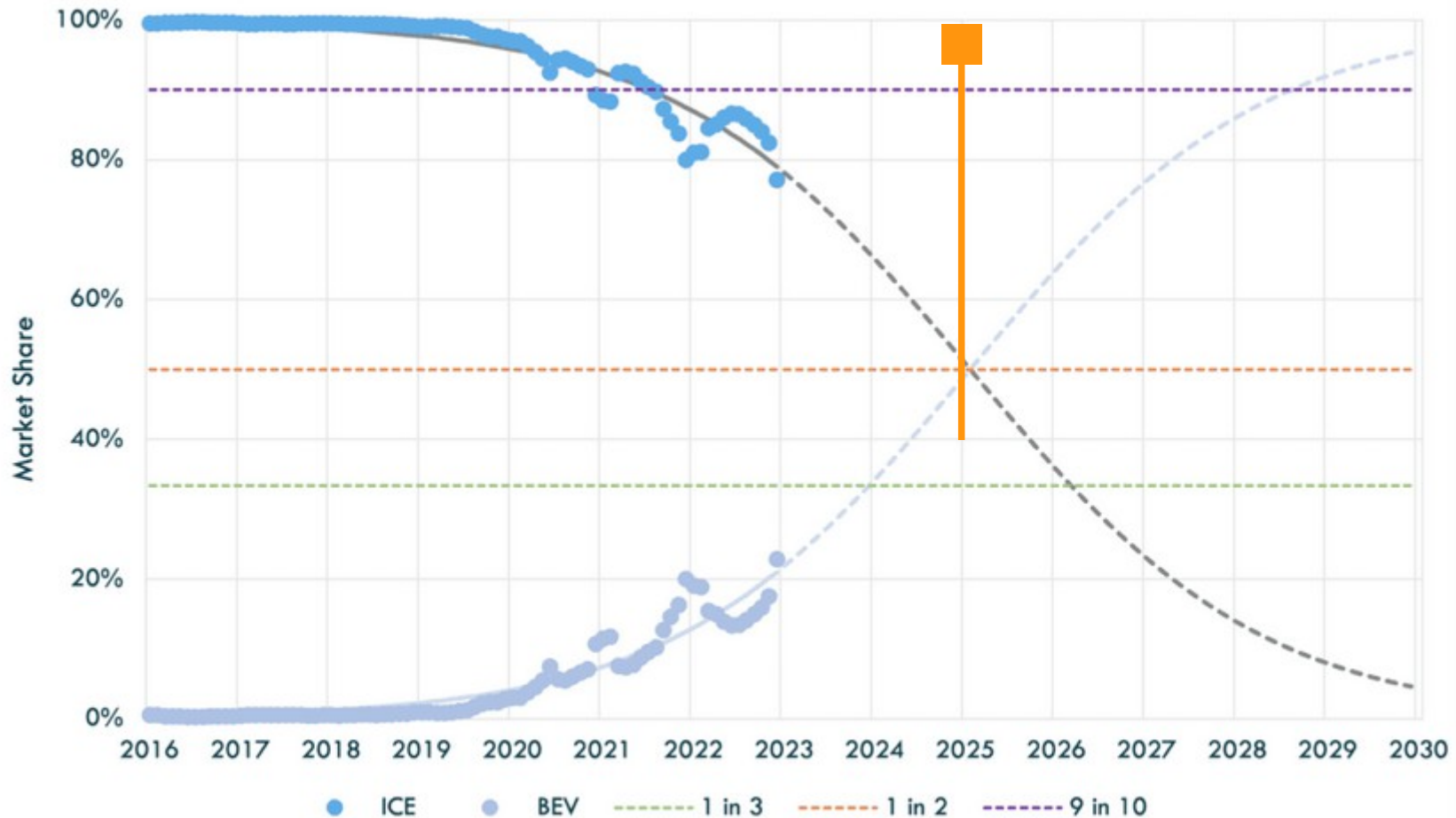


● = majority public ● = mixed ● = most privatised

Where does air pollution come from?

- NOx: **35% road transport**
 - **17% rail, shipping**
 - **22% energy generation**
 - **19% industry**
- SO2: **37% energy generation**
 - **22% industry and construction**
 - **22% open fires, stoves**
- PM: **38% open fires, stoves**
 - **16% industry and construction**
 - **13% industrial processes, solvents**
 - **12% road transport**
- NMVOC: **54% industrial processes**
 - **14% agriculture**
 - **8% domestic, industry burning**
 - **5% transport**
- Ammonia: **88% manure, slurry, fertiliser**
 - **4% waste sector**
 - **8% vehicles, industry, waste, etc**
- Measures include:
 - **electrifying transport:**
 - 52% Nitrogen Oxide
 - 12% Particulate Matter
 - 5% Non-Methane Volatile Org.
 - **clean energy generation:**
 - 22% Nitrogen Oxide
 - 37% Sulphur Dioxide
 - Just 2.5m homes use **open fires or stoves burning wood or coal:**
 - 22% Sulphur Dioxide
 - 38% Particulate Matter
- Defra, Air quality: explaining air pollution – at a glance (14 Jan 2019)

UK produced 1,025,474 vehicles in 2023, 80% exported.
(c) 2.5m new vehicle registrations, 2023. 41.2m licensed = 16y
17.8% BEV, 8.3% PHEV, 13.7% HEV = 39.8%.

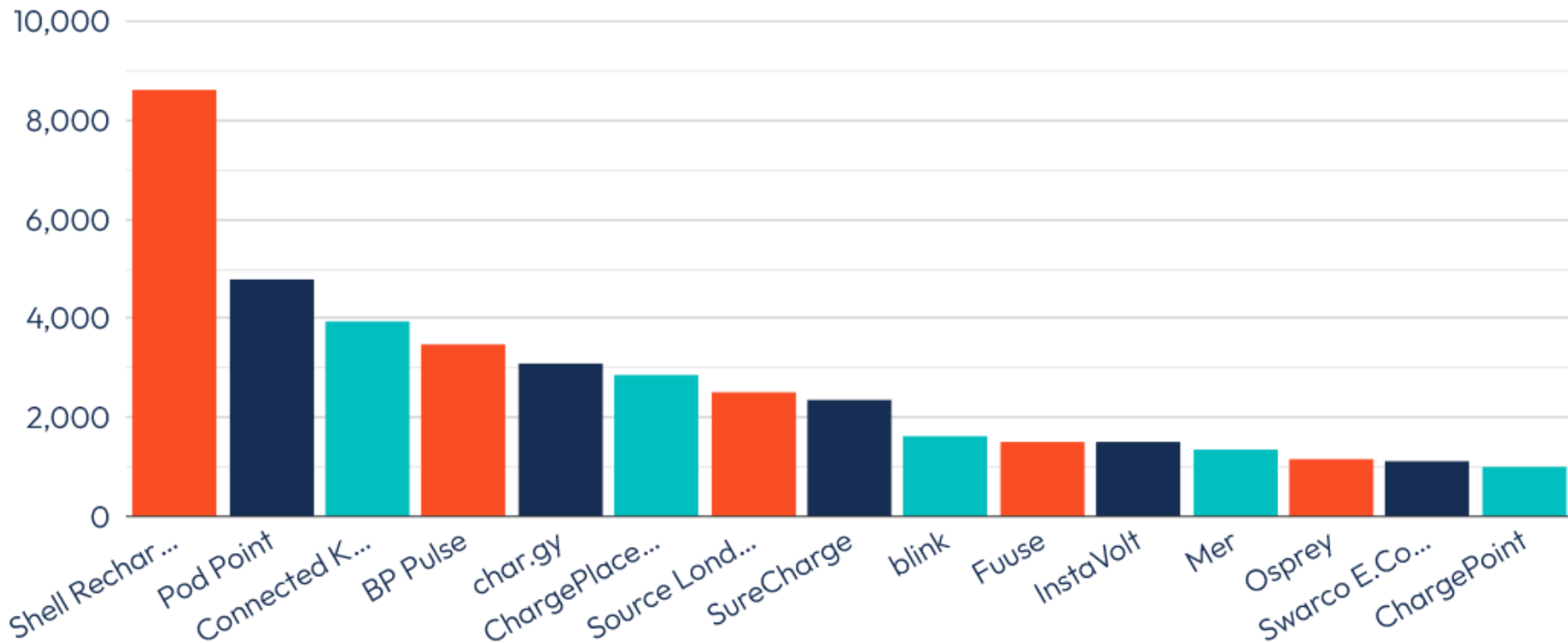


New car sales: “S” curve can be a “J” curve with effective law.

<https://carbontracker.org/one-in-three-uk-car-sales-may-be-fully-electric-by-end-23-as-s-curve-transforms-market/>

UK has 60,000 EV charge points, London 20,000 (2024)

Network market share UK - all electric vehicle charging points

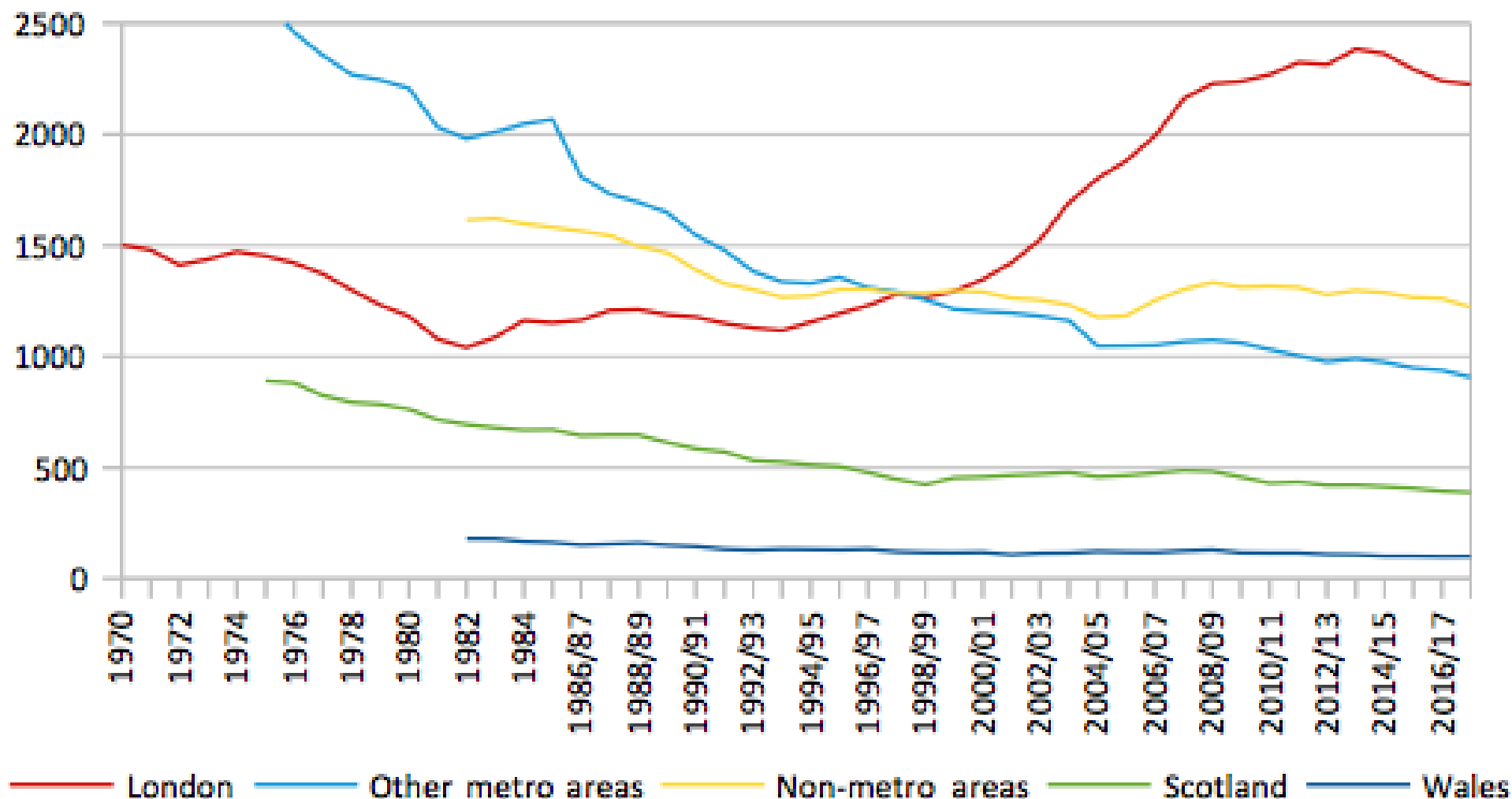


Total charge devices: 59,590. Source: Zapmap database, 31st March 2024

(d)

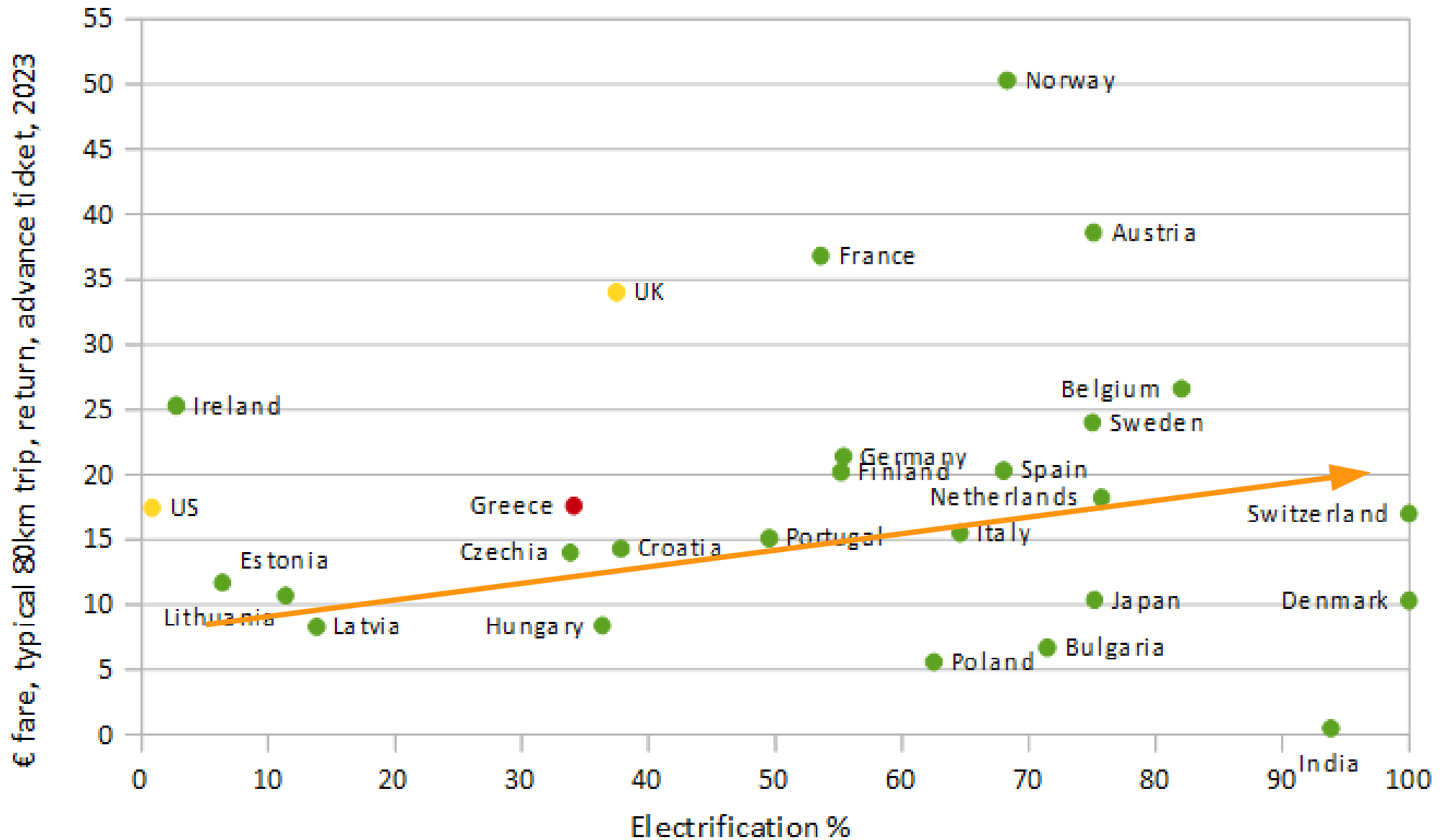
Bus passenger journeys, 1970-2017

Source: DfT, Annual bus statistics, year ending: March 2018 tables, Bus0103 and 0108



Rail fares and electrification (2023)

Sources: S Yanatma (9 January 2023) Euronews.



● = majority public ● = mixed ● = most privatised

(5) Models and options to meet goals

- (a) Duty to phase out, not maximise oil
- (b) Electricity grid, Ofgem, GB Energy
- (c) Tax, bus and rail regulation

(a) Duty to phase out, not maximise oil

- **Replace duty to maximise oil and gas** in Petroleum Act 1998 s 9A with a **duty to cease oil and gas as quickly as technology allows consistent with national security and climate duties.**
- Trigger company **investigations with 200 members or the Secretary of State into BP, Shell and Glencore** for unlawful purpose of violating Paris Agree: CA 1985 ss 431(1)(a) or 432(2)(a)
- If investigation establishes unlawful purpose or fraud, use **public interest winding up to transfer assets to a new entity that rebuilds as a renewable company**, like Denmark's Orsted: Insolvency Act 1986 s 124A



(b) Electricity grid, Ofgem, GB Energy

- Great British Energy Bill s 3(2) object to participate in (a) ‘production, distribution, storage and supply of clean energy’; s 4, SS can finance. **Use for generation + public option retailer/s to compete**, either nationally, or partnerships with locally owned retailers.

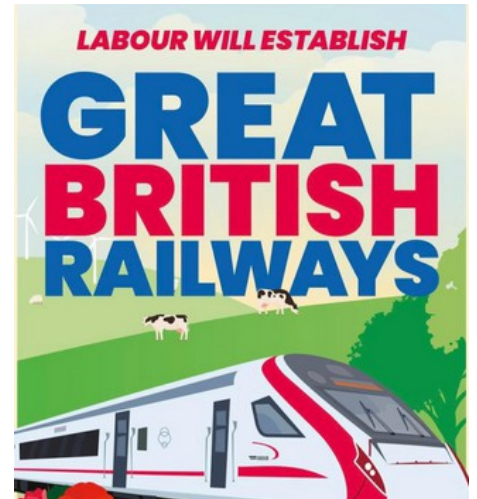


- **Duties on Ofgem and electricity suppliers for clean generation and storage within 4 years:** Electricity Act 1989 ss 3A(1A), 6, as part of a new **Clean Air Act**
- Publicly financed grid upgrades to be publicly owned by GB Energy group. Duty on Grid co’s to connect generators in 3 months at a reasonable cost: Energy Act 2023 s 165A
- Energy company boards should be reformed to have **worker and user-elected directors**, as in Denmark or Germany: Gemeindeordnung Nordrhein-Westfalen 1994 §108a, 1/3 worker directors, extendable to one-half. §113, council must have appropriate influence, incl. mayor.



(c) Road, bus and rail regulation

- Only give tax deductions to businesses that buy clean vehicles, not fossil fuel vehicles: Belgium does this
- New duty on UK vehicle-makers to go all electric in 4 years, as part of a new **Clean Air Act**, funded by procurement from NHS, police, Royal Mail, etc
- Require all petrol stations install electric charging points, plus large car parks, SS or Mayors: AEVA 2018 ss 11-12
- Stop internal combustion sales sooner than 2030 – when upfront electric has price parity, end fossil sales: 2025?
- GB Railways Bill requires train operating companies to be taken into public ownership as franchises expire
- Buses Bill will let local authorities run own bus services, not just mayoral combined authorities
- In both Bills require electrification target for all train lines and bus fleets: Indian Railways Electrification Comm 32% → 96% in 12 years. Also Shenzhen in China, buses.



Train companies in public ownership from **insolvency**, next **franchise expiry**

British Rail. We're getting there...



Re-nationalised June 2018



Re-nationalised March 2020



Re-nationalised February 2021



Re-nationalised October 2021



Re-nationalised April 2022



Re-nationalised May 2023



Re-nationalised June 2023

Contract expires 15 Sept 2024



Contract expires 15 Sept 2024



Contract expires 1 April 2025



Contract expires 1 April 2025



Contract expires 5 May 2025



Contract expires 22 June 2025



Contract expires 20 July 2025



Contract expires 18 Oct 2026



Contract expires 18 Oct 2026



Contract expires 15 Oct 2027



Discussion questions

- 1. What should be done (if anything) with BP, Shell and Glencore as part of 'international action'?
- 2. How can the decarbonisation of electricity be accelerated to zero carbon quicker than 2030?
- 3. How can road traffic be electrified and turned to zero carbon as fast as possible?
- 4. How can rail be electrified as fast as possible?