TECHNICAL NOTE

The Price of Climate Policy

What Britain has paid through its electricity bills since 2002, and what it still owes

Richard Lyon
richard@richardlyon.net
Independent researcher, Edinburgh, United Kingdom

Technical note to Report No. 2 · November 2026

ABSTRACT

One of the ways Britain has paid for climate policy since 2002 is through its electricity bills. This paper asks what bill-payers paid through that route from 2002 to 2025, and what contracts, accreditations and entitlements already granted oblige bill-payers and taxpayers to pay from 2026. From 2002 to 2024 they paid £258.6bn in 2024 prices: £144.5bn measured from records of the payments, £84.3bn modelled and £29.8bn estimated. The range, with each line that carries one changed on its own, is £234.4bn to £273.4bn. Both ends come from the most uncertain step: how much of the carbon charge reached the price of power. The provisional figure for 2025 is £24.3bn.

Contracts, accreditations and entitlements granted by 9 November 2026 oblige bill-payers and taxpayers to pay a further £172.3bn from 2026, in 2024 prices, modelled. Counted the way the Treasury values future payments, which treats a pound paid later as worth less than one paid now, it is £145.5bn. Of the £172.3bn, £79.1bn is owed to projects not yet built. Changing each of eighteen disputed assumptions on its own gives £126.6bn to £221.8bn. No official body publishes either bill. Report No. 1 proposed a draft law requiring a yearly statement of these costs. This paper sets out that statement and asks Parliament to extend it: the statement should show the bill still to come, checked each year by an independent body.

KEYWORDS electricity bills · policy costs · renewable subsidies · net zero · Great Britain

THIS VERSION

Version 1.0.0, November 2026.
The bill already paid is read from model-bill-already-paid, version 1.6.3, tag refs/tags/v1.6.3, figures file SHA-256 0cd0a41b189d1c1b1e27a6782101e19cd053d3670aa56918eaf8d9c5148a98c3.
The bill still to come is read from model-bill-still-to-come, version 1.4.0, tag v1.4.0, figures file SHA-256 c42a6c095118ebab9394492876493a3d6673f5ced4ecd5935ed1cc16686a2b75.
Cite as: Lyon, R. (2026). *The Price of Climate Policy: What Britain has paid through its electricity bills since 2002, and what it still owes.* Technical note to Report No. 2. richardlyon.net.

Licence: text and the author's own data and figures, CC BY code, MIT. Third-party data are copied only where their licence allows, and otherwise listed with their publishers.

Summary

Table S.1 gathers the main figures. The paragraphs below say what each means.

What the figures are. The paper's two figures, the bill already paid and the bill still to come, are the price of climate policy itself: money paid or owed through it. How much worse off it left bill-payers is a separate sum, Report No. 1's extra cost, and Annex B walks from one to the other (§1.4).

The bill already paid. From 2002 to 2024 bill-payers paid £258.6bn through climate policy on their electricity bills, in 2024 prices, 24.8% of the whole electricity bill over those years (§1.1). More than half is measured from records of the payments. The rest is modelled, chiefly the carbon

charge in the price of power, or estimated. Two schemes, the Renewables Obligation and the Climate Change Levy, are counted across the United Kingdom, the rest in Great Britain. The 24.8% is a share of the United Kingdom's electricity bill (§9.4).

Table S.1 The two bills at a glance, rounded separately.

	£, 2024 prices	See
The bill already paid, 2002 to 2024		
All lines	£258.6bn	§1.1
measured from records of the payments	£144.5bn	§3.5
modelled, chiefly the carbon charge in the price of power	£84.3bn	§3.5
estimated	£29.8bn	§3.5
Share of the whole electricity bill	24.8%	§1.1
Range, each line that carries one changed on its own	£234.4bn to £273.4bn	§14.2
Without the grid, balancing and power stations' share lines, nor their VAT	£235.6bn	§14.2
With the whole Capacity Market levy counted	£265.2bn	§8.5
Renewables Obligation, the largest line	£92.4bn	§7.1
Carbon in the price of power, modelled (estimated for 2005 to 2012)	£82.9bn	§7.6
collected as UK carbon tax	£23.7bn	§6.2
the rest of the carbon charge in the price	£59.2bn	§6.2
range for how fully the charge passed into the price	£59.1bn to £97.4bn	§14.2
Power stations' unsubsidised share of grid and balancing, estimated	£6.1bn	§8.6
Per household in Great Britain, an average share	£9,590	Annex A
of which on households' own bills	£3,425	Annex A
2025, provisional, outside the headline		
All lines	£24.3bn	§10.4
measured	£13.2bn	§10.4
modelled	£9.8bn	§10.4
estimated	£1.4bn	§10.4
The bill still to come, from 2026, before discounting, modelled		
All obligations granted by 9 November 2026	£172.3bn	§1.2
owed to projects already built	£93.3bn	§12.3
owed to projects not yet built	£79.1bn	§12.3
Discounted at the Treasury's Green Book rate	£145.5bn	§3.3
Discounted at commercial rates	£111.5bn	§3.3
Range, each of eighteen disputed assumptions changed on its own	£126.6bn to £221.8bn	§12.6
Less, if unbuilt projects are abandoned as often as in the past	£2.7bn	§12.3
Renewables Obligation, the largest line	£47.8bn	§12.2
Renewable Contracts for Difference, the next	£38.7bn	§12.2

The range. Four inputs, on three lines of the bill already paid, are uncertain: how much of the carbon charge reached the price of power, the carbon price in 2005 to 2012, the Capacity Market's share, and which power stations paid their share of grid and balancing charges out of subsidy. Changing each on its own gives the low and high figures in the table, and the carbon charge sets both ends (§14.2). Two choices of what to count are shown beside it. Without the grid, balancing and power stations' share lines, nor their VAT, the headline is £235.6bn; those lines are measured against the gas-led alternative, Britain with no climate policy (§3.2), which has no range (§14.2). With the whole Capacity Market levy counted, not just the part attributable to wind and solar, it is £265.2bn (§8.5).

Per household. Shared out among households, the bill already paid comes to £9,590 for each household in Great Britain over 2002 to 2024. That is an average share of a national cost, never any household's own bill. Of it, £3,425 was on households' own electricity bills. In all, households paid £92.5bn on their own bills and businesses £166.1bn (Annex A).

2025, apart. The figures for 2025 are those published so far, and it stands outside the headline (§10.4).

The bill still to come. Contracts, accreditations and entitlements already granted oblige bill-payers and taxpayers to pay £172.3bn from 2026 to the end of each, in 2024 prices before discounting. Part is owed to projects not yet built. Discounted to 1 January 2026 the way the Treasury values

future payments, at its Green Book rate, it is worth less, and less again at the returns investors ask, the commercial rates (§3.3). The range runs from a lower return for Sizewell C's owners after 2039 to low power prices, which raise the bill because the contracts top generators up to a fixed price (§12.6).

What drives each. The Renewables Obligation is the largest line of both bills. Next come carbon in the price of power, in the bill already paid, and the renewable Contracts for Difference, in the bill still to come (§1.3).

How much rests on carbon. Part of the carbon line was collected as UK carbon tax; the rest is the carbon charge in the price of power. With only the tax counted, the headline would be £198.3bn, and with no carbon £174.2bn (§6.2).

The request. Parliament should require a yearly statement of policy costs that shows the bill still to come, checked each year by an independent body (§2, §16).

Independence and declaration

This paper was not commissioned or paid for by anyone. Richard Lyon researched and wrote it, and he built the two models that produce its figures. His wider views are set out in his book, *The Energy Trap* (Swift Press, 2026), which argues that the proposed replacements for fossil fuels can't do the job. He writes the newsletter *The State of Britain* and runs the Subsidy Clock, which shows the bill already paid as it grows. The free reports in this series are not funded.

The author has no financial interests in energy companies, including through any pension or fund he directs.

Review

This paper was independently reviewed and fact-checked before release, and its register of claims is published with it. Errors may be sent to corrections@richardlyon.net; each will be logged on a public corrections page.

Rebuilding the figures

Both models are published as tagged releases with this paper; one command each reruns every model figure (§11). The code at the tag is the authority wherever this paper and the code differ.

Conventions

Years are calendar years. Figures published by financial or obligation year, April to March, are put on calendar years by each line's own rule (§9.3). Money is in 2024 prices, using the Office for National Statistics' CPIH index (series L522, 2015 = 100), unless marked cash, meaning pounds as paid at the time. The bill still to come is in 2024 prices before discounting, and its present values are to 1 January 2026. Each scheme is counted where it runs: the Renewables Obligation, the Climate Change Levy and the Obligation's VAT across the United Kingdom, the rest in Great Britain (§9.4). "Britain" in the title is the everyday name for both. Each headline figure is labelled measured, modelled or estimated, as §3.5 defines them. Figures for 2025 are provisional throughout.

Glossary

These terms are used as the series defines them, except climate policy, which this paper defines for itself, and the schemes, which are described in a line each.

- **Climate policy**: in this paper, the schemes it counts: support for low-carbon generation, the carbon charge in the price of power, the Climate Change Levy, the grid, balancing and backup costs attributable to wind and solar, and the VAT on them; in the draft clauses, Schedule 1A (§6).
- **Renewables Obligation**: a duty on electricity suppliers to present certificates, issued to renewable generators for the power they make, or to pay a buy-out price for each certificate short (§7.1).

- **Feed-in Tariffs**: payments at set tariffs, raised each year with inflation, to small generators, chiefly rooftop solar, for the power they make and export, funded by suppliers (§7.2).
- **Contract for Difference**: a contract that tops a generator's income up to a *strike price*, agreed in advance and indexed to inflation, when the market price is below it, and takes money back when the market price is above (§7.3).
- **Carbon charge in the price of power**: the cost to fossil-fuel power stations of their carbon dioxide, through the emissions allowances they must surrender (the EU's scheme to 2020, most given free in 2005 to 2012; the UK's from 2021) and, from 2013, the Carbon Price Support tax, as it reaches the price of power (§7.6).
- **Climate Change Levy**: a tax on the energy supplied to businesses and the public sector, here on their electricity (§6.3).
- **Capacity Market**: payments, funded by a levy on suppliers, that keep power stations and other plant available for times of peak demand (§8.5).
- **Sizewell C levy**: the charge suppliers pay to fund Sizewell C, the regulated asset base levy (§2.2).
- **Accreditation**: a station's admission to the Renewables Obligation or Feed-in Tariffs, which makes it eligible for the scheme's support: certificates under the Renewables Obligation, tariff payments from suppliers under Feed-in Tariffs (§3.3).
- **Money paid**: what bill-payers or taxpayers actually paid through climate policy, scheme by scheme, with nothing taken off for what the policy saved. A gross figure.
- **Extra cost**: what Britain paid for energy less what the same energy would have cost on the gas-led alternative. A net figure.
- **Bill still to come**: what contracts, accreditations and legal entitlements signed or granted by a cut-off date oblige bill-payers or taxpayers to pay in future, from a valuation date to the end of each one.
- **The gas-led alternative**: Britain from 2002 with no climate policy: no subsidy, no carbon price, plant built and closed on cost, with spare plant sized to the margin the system operator recommends today (§3.2).
- **Range**: the lowest and highest results when each line that carries a range, or each disputed assumption of the bill still to come, is changed on its own, the rest at central. A choice of what to count is shown beside the range, never as an end of it.
- **Bracket**: one disputed assumption of the bill still to come set at a stated alternative to its central value, the rest held central (§12.6).
- **Statement of policy costs**: the yearly statement the series asks the Secretary of State to lay before Parliament.

Contents

	Summary	i
1	The question and the answer	1
2	The statement Parliament is asked for	4
3	What is measured	6
4	How this compares	9
5	The two models and their checks	10
6	Which schemes count	11
7	The amount for each scheme	13
8	Grid, balancing and backup attributable to wind and solar	15
9	Prices, VAT and method	18
10	Every year from 2002	19
11	Open data	21
12	The bill still to come	21
13	Who checks the statement	26
14	How sure	26
15	What is not counted	28
16	What Parliament should do	29
A	Annex A: Derived figures	30
B	Annex B: Reconciliation, and the walk to Report No. 1	31
C	Annex C: Versions and known issues	33
	References	34

1 The question and the answer

One of the ways Britain has paid for climate policy since 2002 is through its electricity bills. This paper asks two questions about that route: what bill-payers paid through it from 2002 to 2025, and what contracts, accreditations and entitlements already granted oblige them and taxpayers to pay from 2026. Here *climate policy* means the schemes this paper counts: support for low-carbon generation, the carbon charge in the price of power, the Climate Change Levy, the grid, balancing and backup costs attributable to wind and solar, and the VAT on them (§6 argues the list). A *bill-payer* is anyone who pays an electricity bill, household or business.

The first answer is *the bill already paid*. The second is *the bill still to come*: what every contract, accreditation and entitlement granted by 9 November 2026 obliges bill-payers and taxpayers to pay from 1 January 2026 to the end of each one. The first date is the *cut-off date*, the second the *valuation date*. Together they would make up a *statement of policy costs*, the yearly account that *the draft clauses* of this series ask the Secretary of State to lay before Parliament (§2). Parliament should extend those clauses so that the statement shows the bill still to come, checked each year by an independent body (§2, §13).

1.1 The bill already paid

Figure 1.1 shows the paid lines year by year, in four groups.

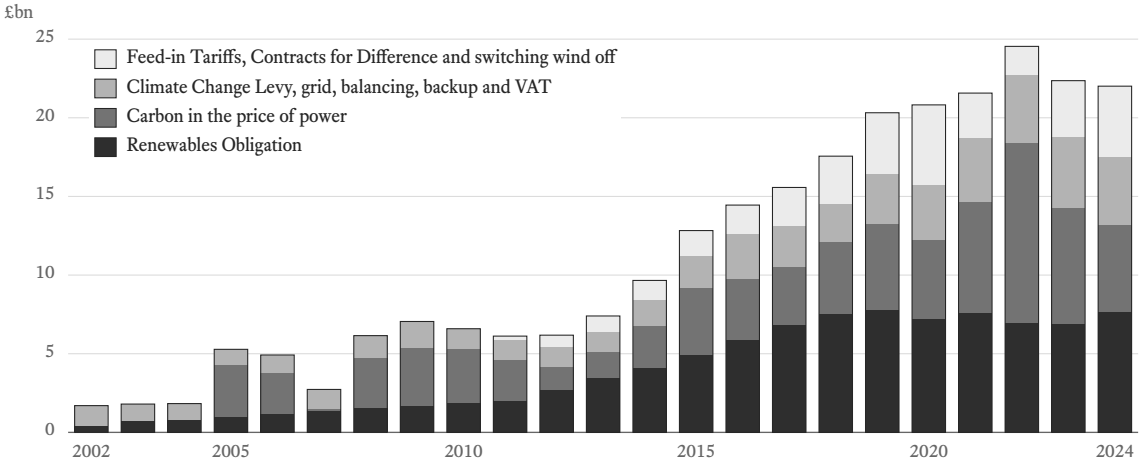

Figure 1.1 The bill already paid by year, 2002 to 2024, £bn, 2024 prices, its lines in four groups: £258.6bn in all. Power stations' share of grid and balancing charges, the part not paid out of subsidy, is in the third group. A line's negative years, such as the Contracts for Difference's in 2022, are drawn at zero. Each line's total is in Table 7.1.

From 2002 to 2024, bill-payers paid £258.6bn through climate policy on their electricity bills, in 2024 prices. This is *money paid*: what went out through each scheme, with nothing taken off for what the scheme saved, and §3.1 argues why that is the right measure for an account. Of it, £125.9bn was paid to generators through the *direct lines*, which the schemes record themselves, and £132.8bn reached bills through the *indirect lines*: the price of power, the grid and tax (the two rounded separately). The grid, balancing and backup lines count only what was paid above *the gas-led alternative*, Britain from 2002 with no climate policy (§3.2). Each figure carries one of three labels, measured, modelled or estimated (§3.5): £144.5bn of the headline is measured, £84.3bn modelled and £29.8bn estimated. This paper puts all the cost of the grid and balancing above the gas-led alternative down to wind and solar: £14.6bn and £1.9bn, and £6.1bn, estimated, of power stations' unsubsidised share of the two charges. That is an assumption; the grid and balancing lines have no range, and power stations'

share is probably high (§8.4, §8.6). Without those three lines, nor their VAT, the headline would be £235.6bn (§14.2).

Over the same years the whole electricity bill was £1,043.6bn, so climate policy was 24.8% of it, and in 2024 alone it was £22.0bn, or 33.2% of that year's bill. Two schemes, the Renewables Obligation and the Climate Change Levy, are counted across the United Kingdom, the rest in Great Britain. The 24.8% is a share of the United Kingdom's electricity bill (§9.4). Four inputs, on three lines, are uncertain: how much of the carbon charge reached the price of power, the carbon price in 2005 to 2012, the Capacity Market's share, and which power stations paid their share of grid and balancing charges out of subsidy. Changing each on its own gives £234.4bn to £273.4bn, and the carbon charge sets both ends (§14.2). Counting the whole Capacity Market levy is a choice of what to count, not an end of that range, and §8.5 shows the headline under it.

Shared out among households, the bill already paid comes to £9,590 for each household in Great Britain over 2002 to 2024. That is an average share of a national cost, never any household's own bill; on its own bills an average household was charged £3,425, before the government's help with bills in 2022 and 2023 (Annex A). The two lines counted across the United Kingdom, the Renewables Obligation and the Climate Change Levy, with the VAT on the Obligation, are divided by its households and every other line by Great Britain's (§9.4).

2025 is the *provisional year*: its data are not final, so it stands apart from the headline. On the figures published so far, the bill already paid in 2025 was £24.3bn, of which £13.2bn is measured, £9.8bn modelled and £1.4bn estimated, rounded separately. It includes the first month of the Sizewell C levy, £82.2m. No total for 2002 to 2025 is printed (§10.4).

1.2 The bill still to come

Figure 1.2 shows the bill still to come year by year, in four groups.

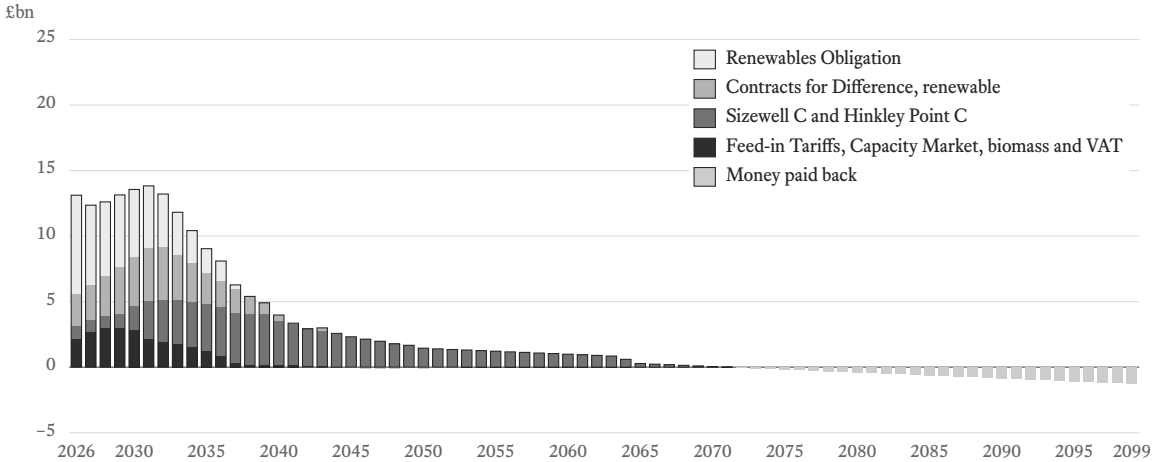

Figure 1.2 The bill still to come by year, 2026 to 2099, £bn, 2024 prices before discounting, its lines in four groups, on Figure 1.1's scale: £172.3bn in all before discounting, £145.5bn at the Green Book rate. It leaves out lines Figure 1.1 counts, because no contract fixes them: carbon in the price of power, the Climate Change Levy, the grid and balancing, and the payments for switching wind off and turning other plant up. Money paid back, chiefly by Sizewell C from 2072, is drawn below the axis. Each line's total is in Table 12.1.

Contracts, accreditations and entitlements already granted oblige bill-payers and taxpayers to pay £172.3bn from 2026 to the end of each, in 2024 prices before discounting. It is not the whole of what climate policy will add to electricity bills. It leaves out lines the bill already paid counts, because no contract fixes them: the carbon charge in the price of power; the Climate Change Levy; the grid and balancing costs of wind and solar and power stations' share, including the cost of the grid already

built, which network charges recover for decades to come; and payments for switching wind off and turning other plant up. It leaves out auctions not yet held too (§15.1). Added to the bill already paid, it gives a floor, not the whole bill.

The figure is modelled throughout, because it rests on prices and output that have not happened yet. Of it, £93.3bn is owed to projects already *built*, meaning commissioned by the cut-off date, and £79.1bn to projects *not yet built*, Hinkley Point C and Sizewell C among them (§12.3). Households would pay £59.1bn, businesses £103.8bn and *taxpayers* £9.5bn, each part in this paragraph rounded separately. Taxpayers appear because part of the cost has been moved off bills: from 1 April 2026 the Exchequer funds three quarters of the Renewables Obligation due to be levied on households' bills, for three years (HM Treasury 2025, p.12).

A pound due in 2060 is worth less today than a pound due next year, so two present values sit beside the headline (§3.3). At the *Green Book rate*, the discount rate the Treasury sets for public appraisal (HM Treasury 2026a, para 6.54), the bill still to come is worth £145.5bn at the valuation date. At a *commercial rate*, the return an investor in each technology would ask, it is worth £111.5bn. Its *range*, the lowest and highest results when each of eighteen disputed assumptions is changed on its own with the rest held central, runs from £126.6bn to £221.8bn. The low end holds Sizewell C's allowed return after 2039 at the Green Book rate instead of the return in its licence. The high end puts the price of power on the low path of the Department for Energy Security and Net Zero (DESNZ), because lower prices mean larger top-ups under the Contracts for Difference and a larger Sizewell C charge (§12.6).

1.3 What drives them

The largest lines of the bill already paid are the Renewables Obligation and carbon in the price of power; of the bill still to come, the Renewables Obligation and the renewable Contracts for Difference. From 2002 to 2024 the Renewables Obligation cost £92.4bn and carbon £82.9bn, modelled and, for 2005 to 2012, estimated, with a range of £59.1bn to £97.4bn for how fully the charge passed into the price (§14.2). Still to come, the Renewables Obligation is £47.8bn and the renewable Contracts for Difference £38.7bn. The two nuclear stations follow close behind: Sizewell C at £31.1bn and Hinkley Point C at £30.1bn.

1.4 What the figures are not

Both bills are the price of climate policy itself: money paid or owed through it. How much worse off it left bill-payers is a separate sum, the *extra cost*, which Report No. 1 of this series, *Reliable Britain*, models: a modelled bill for the electricity Britain used, less one for the same electricity on the gas-led alternative. The two answer different questions and must never be added, and Annex B walks from one to the other, line by line.

Nor is either figure a verdict on whether the policy was worth paying for. The paper puts no value on carbon dioxide: it measures what bill-payers paid and are obliged to pay. It counts electricity only, and what climate policy costs through gas bills, heat, transport and industry is left to Report No. 3 (§15). The Subsidy Clock already shows the bill already paid as it grows, from the same model (Annex C). This paper adds the bill still to come, sets out the statement of policy costs both bills would form, and walks from its figure to the series' net measure (Annex B).

The paper sets out the draft clauses next (§2), then what is measured, the rival figures and the two models (§3 to §5). One chapter then takes each part of the clauses in turn (§6 to §11). The bill still to come and who should check it follow (§12, §13), then how sure the figures are, what is left out and what Parliament should do (§14 to §16).

2 The statement Parliament is asked for

The statement this paper asks for would be laid before Parliament each year under the draft clauses below. Chapters 6 to 11 then take the statement one part at a time, and chapters 12 and 13 the two parts this paper adds.

2.1 The draft clauses, with this paper's additions

The draft clauses are printed below as the series keeps them: a short new section 16A of the Climate Change Act 2008, with the costs it covers listed in a Schedule whose numbers never change (version 1, November 2026). Report No. 1 proposed the duty and the costs; this paper's additions are underlined. Section 16 of the Act already makes it "the duty of the Secretary of State to lay before Parliament" each year a statement of the United Kingdom's emissions; section 16A, which the Act does not yet use, would add a statement of what bill-payers pay to cut them (Climate Change Act 2008, s.16).

Annual statement of policy costs

After section 16 of the Climate Change Act 2008 insert—

"16A Annual statement of policy costs

(1) It is the duty of the Secretary of State to lay before Parliament in respect of each year, beginning with the year 2026, a statement of policy costs.

(2) The statement must state, for each cost listed in Schedule 1A, the amount paid in the year by or on behalf of electricity consumers in Great Britain, whether through charges made by electricity suppliers, network or balancing charges, or the wholesale price of electricity, and, for each cost listed in Part 2 of that Schedule, the Secretary of State's estimate of that amount.

(3) The statement must— (a) state each amount in the prices of the year and in the prices of a base year stated in the statement; (b) state the value added tax charged on those amounts; and (c) identify the methods and data used.

(4) The first statement must also contain the information required by subsection (2) for each year from 2002 to 2025.

(5) The statement must be laid before Parliament not later than 30th September in the year following that to which it relates.

(6) The Secretary of State must publish, at the same time as each statement, the data and calculations used in a form that allows the amounts to be reproduced.

(7) The statement must also state the Secretary of State's estimate of the amounts that will be payable in each later year, until each obligation ends, under contracts, accreditations, agreements and regulations for any cost listed in Part 1 of Schedule 1A entered into, granted or made on or before a date stated in the statement (being a date not earlier than the last day of the year to which the statement relates), and the part of those amounts expected to be met by or on behalf of electricity consumers in Great Britain and the part expected to be met out of money provided by Parliament.

(8) That estimate must be stated (a) without discounting, in the prices of the base year; (b) discounted at the rate in HM Treasury's guidance on appraisal; and (c) separately for generating stations already commissioned and those not yet commissioned.

(9) The Secretary of State must arrange for a person independent of the Secretary of State to examine the estimate under subsection (7) and report on whether it is reasonable and how it differs from the last; and must lay the report before Parliament within three months of the statement.

(10) The Secretary of State may by regulations amend Schedule 1A so as to add a cost to it; regulations under this subsection may not be made unless a draft has been laid before and approved by a resolution of each House of Parliament."

After Schedule 1 to the Climate Change Act 2008 insert—

"Schedule 1A: Costs covered by the statement of policy costs

Part 1: Schemes paid for through electricity supply

1 A renewables obligation imposed by an order under section 32 of the Electricity Act 1989.

2 Feed-in tariffs under arrangements made by virtue of section 41 of the Energy Act 2008.

3 Contracts for difference under Chapter 2 of Part 2 of the Energy Act 2013.
4 [Omitted.]
5 Any greenhouse gas emissions trading scheme, and carbon price support under paragraph 42A of Schedule 6 to the Finance Act 2000, to the extent reflected in the wholesale price of electricity.
6 Climate change levy charged on supplies of electricity.
7 Any other scheme which the Secretary of State considers adds to the cost of supplying electricity for the purpose of reducing greenhouse gas emissions.
7A Payments by electricity suppliers to a revenue collection counterparty under regulations made under section 15 of the Nuclear Energy (Financing) Act 2022.
Part 2: Costs attributable to wind and sunlight, estimated
8 Balancing the national electricity transmission system.
9 Reinforcing electricity transmission networks.
10 Capacity held in reserve.
In each case to the extent attributable to the connection and operation of generating stations powered by wind or sunlight."

The clauses keep "Great Britain" in subsection (2), as Report No. 1's text has it, and in this paper's subsection (7), although two of this paper's lines are counted across the United Kingdom (§9.4).

2.2 What each addition does

A yearly account of what was paid tells Parliament nothing about what is already owed. Subsection (7) would make the statement show it: for each later year, what the contracts, accreditations, agreements and regulations already in force oblige bill-payers and the Exchequer to pay, until each obligation ends. Subsection (8) has that estimate shown three ways, undiscounted, discounted and split between stations built and not yet built, which is how chapter 12 shows it. Subsection (9) would have the estimate examined each year by a person independent of the Secretary of State, in the way the Office for Budget Responsibility examines the public finances (§13).

The new paragraph 7A of the Schedule names the levy that funds Sizewell C, the *regulated asset base levy*. The Nuclear Energy (Financing) Act 2022 provides for "a regulated asset base model for nuclear energy generation projects", under which electricity suppliers pay a revenue collection counterparty so that it can make payments to the nuclear company, payments that "may be made both before and after the start of electricity generation" (Nuclear Energy (Financing) Act 2022, long title, ss.15 and 19). Suppliers have paid it since December 2025 (§7.5). Left to the catch-all, paragraph 7, its place in the statement would rest on the Secretary of State's view of whether it adds to the cost of supplying electricity to cut emissions. Named, it is in. Paragraph 4 is left empty: the Capacity Market is counted under paragraph 10. Subsection (10) lets the Secretary of State add a cost by regulations each House approves, without a new Act; no number in the Schedule ever moves.

2.3 Why no official figure exists

No official body publishes what bill-payers pay through climate policy on electricity bills, scheme by scheme, each year. The Department of Energy and Climate Change last estimated the effect of its policies on bills in 2014, as "the difference between an energy bill in a given year compared with what that bill would have been in the same year if the policies had never been in place" (DECC 2014, para 43). The National Audit Office recorded two years later that it had "recommended in 2013 that the Department should establish routine reporting along these lines. It has failed to do so, with its last report on this topic in 2014" (NAO 2016, para 3.13).

Two bodies publish parts of the account today. The Office for Budget Responsibility forecasts "environmental levies" as receipts, by financial year, for the Renewables Obligation, the Contracts for Difference, the Capacity Market, the Sizewell C levy and two schemes this paper does not count;

Feed-in Tariffs appear as outturn for 2025-26 only, their forecast left to its next outlook (OBR 2026, Table 4.20; para 4.47). Its forecast runs to 2031-32 and holds no carbon charge in the price of power and no grid or balancing cost. Ofgem sets an allowance for policy costs in its price cap, per typical household on the cap, before each period (Ofgem, price cap Annex 4, v1.25). Neither is a statement of policy costs. One is a forecast of tax receipts to 2031-32, the other an allowance for a typical customer, and neither shows each scheme's amount, every year, with what is still owed (§4.2).

3 What is measured

3.1 Money paid, and why it is the measure

The bill already paid counts money paid: what bill-payers paid through each scheme, with nothing taken off for what the scheme saved. The author chose this measure because it is what an account says: what went out, through which scheme, in which year. Each direct line can then be checked against the scheme's own record (§5.3), and the statement Parliament would receive could be audited in the same way. The strongest objection is that a gross figure overstates the cost. The National Audit Office put it in 2016: "some consumer-funded policies create cost savings for consumers", so the department's reporting to Parliament should "explain the overall impact of the Department's policies on consumer bills" (NAO 2016, para 3.12). O'Shea, Horne and Maslin go further, finding, in a preprint not yet peer reviewed, that "wind generators reduce market prices" and that wind brought UK consumers a net benefit from 2010 to 2023 (O'Shea, Horne and Maslin 2025, preprint, version 1, abstract).

The objection has a sharper form. A critic will say that this paper counts the carbon charge in the power price, but not the fall in the power price that wind and solar brought, and that both come from a model. They do, but they are different kinds of estimate. The carbon charge is worked out on what happened: the plant that ran, the power it made and the carbon price it paid. The model finds which plant set the price, and the charge is taken to pass into the price in full (chapter 6; §14.2 gives the range if it passed in part). The fall in the power price needs output that never happened: other plant running in place of the wind and solar. It can be estimated from the past link between wind and solar output and the power price, as Report No. 1 does by a published method. This paper counts money paid, so it counts the carbon charge and not that fall.

Part of the objection is met already. Money paid back under Contracts for Difference is taken off in the year it was paid, so the figure already nets the one saving that is a recorded payment. In 2022 that line was −£0.4bn (§7.3). Whether the contracts pay back in later years is the bill still to come's question (chapter 12). Annex B walks from this paper's figure to the series' net measure, the extra cost, step by step.

3.2 Direct and indirect, and the gas-led alternative

Four lines are payments to generators, recorded by the schemes themselves; the others reach bills through the price, the grid and tax. The *direct lines* are the Renewables Obligation, Feed-in Tariffs, the Contracts for Difference and payments to switch wind farms off, and from December 2025 the Sizewell C levy joins them. The *indirect lines* are carbon in the price of power, the Climate Change Levy, the high-voltage grid, balancing, the cost of replacing switched-off wind, power stations' unsubsidised share of grid and balancing charges, the Capacity Market and VAT. The grid, balancing, power stations' share and Capacity Market lines count only the part above what the gas-led alternative would have paid (§8).

The gas-led alternative is Britain from 2002 with no climate policy: no subsidy, no carbon price, plant built and closed on cost, with spare plant sized to the margin the system operator recommends

today (Report No. 1, §2.5). This series' rule is that wind and solar are built on it only where, at the time the decision is taken, they are expected to pay their own way, including their own backup, storage, system and connection costs; for 2002 to 2024 that builds none, as in Report No. 1, which takes them away. On the government's own cost estimates of 2013 and 2016 (DECC 2013; BEIS 2016), new wind and solar cost more than new gas without a carbon price, even before backup and wider system costs. So wind and solar fail the test even before the grid and backup costs of chapter 8 are added. This paper does not build the alternative afresh. It reads the alternative's grid, balancing and capacity costs from Report No. 1's model, release v4-s43, and Annex C lists what that report's public review could move.

3.3 The bill still to come: what counts, and in what money

The bill still to come counts only obligations that exist today: contracts, accreditations and entitlements granted by the cut-off date. Counting starts at the valuation date, so most of 2026's payments will have been made by the time this paper is read. They stay in, so that the bill still to come begins where the bill already paid ends, with no year missed or counted twice. Renewables Obligation payments rest on orders that ministers make, and the Secretary of State may by order stop certificates being issued for electricity generated after a set date (Electricity Act 1989, sections 32 and 32LA); Feed-in Tariff payments rest on supply licence conditions that the Secretary of State can modify (Energy Act 2008, section 41). Counting them as owed is a choice, and Table 3.1 lists it. Costs that the law and its targets require, but that no contract yet obliges anyone to pay, such as future auction rounds, are *legislated, not contracted*; Report No. 3 counts them, with the cost of net zero beyond electricity (§15.1). What is owed today can be lawfully reduced and ended; Report No. 4 sets out how.

The headline is in 2024 prices before discounting, because the question is what bill-payers and taxpayers are obliged to pay. A *present value*, as used here, discounts each later year's payment back to 1 January 2026, with 2026 itself undiscounted. The paper gives two. The Green Book rate is 3.00% a year in real terms for the first 30 years and 2.50% for years 31 to 75 (HM Treasury 2026a, para 6.54). The commercial rate is DESNZ's medium hurdle rate where DESNZ gives one, from 7.6% for large-scale solar and onshore wind to 10.1% for floating offshore wind (DESNZ 2025, Table 6), with 8.9%, DESNZ's rate for gas (Table 7), for other firm plant; technologies DESNZ does not list take the nearest rate, and the two nuclear stations the return in Sizewell C's licence, 6.73%. A critic may say the discounting was chosen to suit the result. All three, the undiscounted headline and the two present values, are printed line by line (Table 12.1).

3.4 Hinkley Point C and Sizewell C, counted

The two new nuclear stations are counted in the bill still to come, each on its own line. A critic will say the two nuclear stations are energy-security policy, not climate policy. Hinkley Point C is counted because Report No. 1's draft law covers every Contract for Difference, Sizewell C because this paper adds its levy to the list, and the gas-led alternative, which runs only to 2024 with nuclear as it actually was, includes neither. Whether nuclear is chosen for the climate or for energy security, bill-payers pay for both stations through charges the statement would cover. Without them, and the VAT on them, the bill still to come is £110.1bn.

3.5 Measured, modelled and estimated

Every headline figure in this paper carries one of three labels, given where it appears. *Measured* means payments or receipts as recorded: Ofgem's figures for the Renewables Obligation and Feed-in Tariffs, the Low Carbon Contracts Company's (LCCC's) settlement for the Contracts for Difference and the Sizewell C levy, the record of Elexon, the market's settlement body, for switch-off payments from 2016 and National Grid's own monthly reports for 2014 and 2015, HMRC's receipts for the

Climate Change Levy. *Modelled* means a figure worked from records by a stated method: carbon in the price of power, the grid and balancing above the gas-led alternative, the Capacity Market's share and VAT. *Estimated* means that an input the figure rests on is itself not recorded: carbon in 2005 to 2012, priced at a yearly allowance price that the European Environment Agency publishes without stating its origin, the cost of replacing switched-off wind, switch-off payments in 2010 to 2013, where National Grid printed yearly totals only, and unsubsidised power stations' share of grid and balancing charges. The first two and the last carry a range, and so does one modelled line, the Capacity Market's share (§14.2).

The labels follow each line year by year, so carbon is estimated for 2005 to 2012 inside a line that is otherwise modelled. Counted that way, £144.5bn of the 2002 to 2024 headline is measured, £84.3bn modelled and £29.8bn estimated; of 2025's provisional £24.3bn, £13.2bn is measured, £9.8bn modelled and £1.4bn estimated, rounded separately. The bill still to come is modelled throughout.

3.6 Where and when

The figures cover each scheme where it runs (§9.4), every calendar year from 2002. The series starts in 2002 because subsection (4) of the draft clauses asks the first statement for each year from 2002. A critic may say the count should start in 2001, when the Climate Change Levy began (HMRC 2015). Report No. 1, which counts the levy only as its difference from its 2001 level, also starts in 2002, so the two figures cover the same years.

3.7 The choices a reader might dispute

Table 3.1 lists each choice a reader might dispute, which way it moves the figure, and where it is argued.

What the paper does	Effect on the figure	Where it is argued
The bill already paid		
Counts money paid, not the extra cost	Raises it	§3.1, Annex B
Counts the whole carbon charge in the price of power	Raises it	§6.2
Counts the Climate Change Levy at its full rate	Raises it	§6.3
Counts the Renewables Obligation and the Climate Change Levy across the UK	Raises it	§9.4
Counts power stations' share of grid and balancing charges, except the part paid out of subsidy	Raises it; leaving that part out avoids a double count	§6.4, §8.6
Leaves out energy-saving schemes	Lowers it	§6.5
Counts only the grid beyond the gas-led alternative's	Lowers it	§8.4
Counts only the balancing beyond the gas-led alternative's	Lowers it	§8.4
Counts only the part of the Capacity Market attributable to wind and solar	Lowers it	§8.5
The bill still to come		
Gives the headline before discounting	Raises it	§3.3, Table 12.1
Counts the two nuclear stations	Raises it	§3.4
Counts contracts for projects not yet built	Raises it	§12.3
Counts payments under accreditations that ministers can close or modify	Raises it	§3.3, Table 12.1
Uses DESNZ's central price path	Neither	§12.5, §12.6

4 How this compares

Two kinds of figure sit beside this paper's: the case that policy costs are small, and the official series. Each is given in its own words first. Each difference from this paper's figure is then explained in a fixed order: what is counted, over which years, in what money, and by what method.

4.1 The case that policy costs are small, or that bills fell

The strongest case against this paper's question is the department's own net test, quoted in §2.3 (DECC 2014, para 43). Two other forms follow: whether bills fell, and what sets the price of power. The Climate Change Committee holds that household bills fell after 2008 because lower use outweighed the cost of policy:

> "Household bills in 2016 were below 2008 levels as higher prices resulting from low-carbon policies and network costs were more than offset by reductions in energy use" (CCC 2017, p.6).

The Climate Change Committee credits much of the fall in household energy use to standards for appliances, lighting and boilers. Ministers today put high prices down to gas and the Middle East. Lord Whitehead, Minister of State at DESNZ, told a Lords Grand Committee on 4 June 2026 that "it is overwhelmingly the case that the present high electricity prices in the UK market are based on our being very high users of gas in the system to create electricity" (HL Deb, 4 June 2026). Michael Shanks, the Minister for Energy, told the Commons on 21 October 2026 that "the situation in the middle east is what is driving up everyone's bills" (HC Deb, 21 October 2026, col. 1144). The regulator puts policy costs at 6% of a typical dual-fuel bill paid by direct debit from October to December 2026, with the Contracts for Difference counted under wholesale costs, where Ofgem has counted them since 2022 (Ofgem 2026, Annex 1, p.4).

The rise in bills in 2022 was driven by the wholesale price of gas: the regulator's own statement put the rise in its cap from October 2022 down to wholesale costs, "primarily due to the invasion of Ukraine by Russia and the subsequent political fall-out" (Ofgem 2022, p.1). A fall in households' combined gas and electricity bills from 2008 to 2016, and the money paid through electricity bills in each year, can both be true, because they measure different things.

The Committee's comparison runs across time, for a dual-fuel bill, net of lower use of both fuels; this paper's figure is what was paid through each scheme in each year, for electricity alone. Ofgem's share is of a typical household's yearly bill for gas and electricity together, at the cap's rates for October to December 2026, and it counts the Contracts for Difference as wholesale costs, not policy costs, though this paper counts them; §4.2 sets Ofgem's own figures for the schemes both count beside this paper's. The ministers' point is about what sets the price of power, not about what climate policy costs. O'Shea, Horne and Maslin's finding is a net measure, against a modelled alternative, and so answers the net question, not this one (§1.4).

The paper therefore rejects the case as an answer to its question. Every one of these statements can be true, and bill-payers still paid £258.6bn through climate policy on their electricity bills from 2002 to 2024. None of them gives the amount paid through each scheme, which is what the statement of policy costs would show.

4.2 The official figures: part of the account, close where they overlap

The official series each cover part of what this paper counts, and none covers it all. The Office for Budget Responsibility's outturn for environmental levies to 2024-25, compiled by the ONS, covers the Renewables Obligation and the Contracts for Difference by financial year, in cash, with two schemes this paper does not count, the Warm Home Discount and the CRC Energy Efficiency Scheme. It holds no Capacity Market, which the ONS has yet to include, and no Feed-in Tariffs before 2025-26, and, beyond the CRC scheme's payments, no carbon, grid or balancing cost.

Matched to it, from 2002-03 to 2024-25, the model's Renewables Obligation and Contracts for Difference come to £85.2bn against the OBR's £86.6bn in cash once those two schemes are taken off, a ratio of 0.984 and a gap of −£1.36bn.

Of it, −£1.53bn is in the Renewables Obligation, set against £0.17bn the other way in the Contracts for Difference. The ONS's receipts for the Obligation's certificates run above Ofgem's value of them in most years from 2012-13, and the difference is not explained, because the ONS does not publish how it values the certificates. It is named and sized here, not reconciled (Annex B).

Ofgem's allowance for policy costs in its price cap is a different kind of figure: a forward allowance for a typical household on the cap, set before each period from forecasts, not money paid. Matched to the two schemes both Ofgem and this paper count as policy costs throughout, the Renewables Obligation and Feed-in Tariffs, per typical household from 2019-20 to 2025-26, the model's £730 is 0.993 times Ofgem's £735 in cash. The Contracts for Difference are left out on both sides in every year, because Ofgem counted them as policy costs until May 2022 and under wholesale costs since; carbon is in neither. Year by year the two agree closely except in 2021-22, a ratio of 0.94, when the Feed-in Tariff fund fell, as generation payments fell and high wholesale prices raised the value of exported power, which is taken off it. The check covers only two of this paper's lines, and 2025-26 is provisional on the model's side.

The Department of Energy and Climate Change's estimate of policies' effect on bills, in 2014, was a net measure, for households and businesses, against a no-policy baseline (§2.3), and answers the net question.

5 The two models and their checks

5.1 The bill already paid model

Every bill-already-paid figure in this paper is read from one frozen file of an open model, built from the schemes' own records. The model takes the Contracts for Difference from LCCC's settlement, the Renewables Obligation and Feed-in Tariffs from Ofgem, the Climate Change Levy from HMRC's receipts, and switch-off payments from Elexon's settlement record from 2016, with National Grid's own reports for 2010 to 2015. Balancing and grid charges come from the National Energy System Operator (NESO), which runs the grid, with the National Audit Office's figures for balancing's earlier years, the whole bill from DESNZ's digest of energy statistics, and prices from the ONS. Power stations' share of grid and balancing charges is split using output data from DESNZ (Table 6.2), LCCC and Ofgem (§8.6). The indirect lines' gas-led alternative is read from Report No. 1's release (§3.2).

5.2 The bill still to come model

The bill still to come is built contract by contract, from the registers of every scheme, as they stood at the cut-off date. It holds 556 renewable Contracts for Difference, 3,597 Renewables Obligation stations, 869,215 Feed-in Tariff installations and 3,790 Capacity Market agreements, with Hinkley Point C, Sizewell C and 2 biomass bridging contracts on lines of their own. For each it projects output, prices and payments year by year to the end of the obligation, in 2024 prices, and splits each payment among households, businesses and taxpayers (§12.4). Its inputs are the schemes' own registers, DESNZ's price projections and generation costs, the Sizewell C licence and the Hinkley Point C contract.

5.3 How the figures match published totals

Each line can be checked against a total that someone else publishes. The Contracts for Difference line differs from LCCC's own daily totals by −0.62%. The Renewables Obligation line is 1.007

times Ofgem's figure. Feed-in Tariffs match Ofgem's figure, and the Climate Change Levy matches HMRC's (Annex B).

The bill still to come begins where the bill already paid ends. Its 2026 payments under the Contracts for Difference are 0.99 times the 2025 figure paid, and its 2026 Renewables Obligation 0.98 times 2024's, the last full year of the Obligation's record. What no published total can check is the gas-led alternative: its parts were tested against data in Report No. 1, but the alternative as a whole, never having happened, has no record to check against.

A critic may say that a model no one else can run proves nothing. Both models are published as tagged releases with this paper, and anyone can rerun every figure from them (§11).

6 Which schemes count

6.1 The list

The schemes counted are those Part 1 of Schedule 1A names, and from December 2025 the nuclear regulated asset base levy. Each item maps to a line of the bill already paid. The Renewables Obligation (paragraph 1), Feed-in Tariffs (2) and the Contracts for Difference (3) are direct lines, and in the bill still to come Hinkley Point C is a Contract for Difference on its own line. Emissions trading and Carbon Price Support (5) are the carbon line, the Climate Change Levy (6) its own line, and the Sizewell C levy (7A) a direct line from December 2025. The catch-all (7) adds nothing. The Capacity Market is counted under paragraph 10, capacity held in reserve, with the other grid, balancing and backup costs of chapter 8; VAT follows subsection (3)(b) (§9.2). What lies outside the list is in chapter 15. Where this chapter or chapter 8 gives the headline under another way of counting, the VAT on the line changes with it. The Climate Change Levy carries no VAT.

6.2 Carbon, counted in full

Should the whole carbon charge in the price of power count as money paid through climate policy, or only the part collected as UK tax? The stakes are the largest of any choice in the bill already paid: carbon is £82.9bn of the headline, of which £23.7bn was collected as UK carbon tax and £59.2bn is the rest of the charge in the price.

The options. The first counts the charge in full, the central case. The second counts only the tax collected, on the critic's view that the rest is a market price, or a transfer between firms. The third counts none of it, on the mainstream view that carbon pricing makes polluters pay. The Climate Change Committee holds that it "can help ensure that private incentives are aligned to the social goal of reducing emissions, through the 'polluter pays' principle" (CCC 2025, p.116). The Government's own values for carbon, however, are set from the cost of meeting targets: "the UK Government adopts a target-consistent approach, based on estimates of the abatement costs that will need to be incurred in order to meet specific emissions reduction targets" (DESNZ 2023, para 3.33).

The evidence. The price follows from caps and a tax rate that governments set. Until 2020 it was the price in the EU's trading scheme, set up "for greenhouse gas emission allowance trading within the Community" (Directive 2003/87/EC, Article 1). From January 2021 it is the price in the UK's own scheme, which "began operating in January 2021, following the departure of the UK … from the EU ETS" (ICAP, UK ETS factsheet). And from 2013 the Carbon Price Support rate, set by Parliament, was added (Finance Act 2000, Schedule 6, paragraph 42A). A critic may say the EU's scheme was EU law, not British policy; but Britain added its own Carbon Price Support on top of it from 2013 and, on leaving, set up its own scheme in its place. Bill-payers paid it whoever received it, and the Committee itself notes: "Carbon taxes raise funds for the Exchequer … but increase household energy bills" (CCC 2017, p.12). The carbon line is modelled. It prices the charge on the

plant that set the price, on the assumption that the charge passed into the price in full, and §14.2 gives the range for how fully it did.

The choice made, and why. This paper measures cost only. It treats the carbon charge in the price as a policy charge like any other levy, so its whole effect on bills counts, and this raises the figure. The disagreement is mainly about values, and partly about accounting. Whether the charge passed through in full is a question of fact, which §14.2 tests with a range from published studies. Whether to count it is a question of values.

The headline under each option. Counted in full, the headline is £258.6bn; with tax collected only, £198.3bn; with no carbon, £174.2bn.

The check, and what would settle it. The model reports two checks on this line: the range from the estimated allowance price of 2005 to 2012, £78.1bn to £88.3bn, and the range for how fully the charge passed into the price, £59.1bn to £97.4bn (§14.2). No data settles a question of values.

6.3 The Climate Change Levy, counted whole

Should the Climate Change Levy on electricity count in full, only above its 2001 rate, or not at all? It is £18.7bn of the headline, measured from HMRC's receipts. The options are the whole levy, the central case; the levy only above its 2001 rate, that rate held in cash and charged on the electricity actually taxed; and none, on the view that it is a general tax on business.

The evidence cuts both ways. HMRC states that "The CCL was introduced in 2001, to improve industrial and commercial energy efficiency and so reduce greenhouse gas emissions" (HMRC 2015). It was introduced alongside a cut in employers' National Insurance from April 2001 (SI 2001/477, art. 2; Lyon 2026a, §13.3). It is charged on businesses and the public sector, not households: "The main rates of CCL do not apply to taxable commodities supplied for use by domestic consumers …" (HMRC 2018, para 2.1). Renewable electricity was exempt at first, and electricity generated from 1 August 2015 lost the exemption (Finance (No. 2) Act 2015, s.49). After that the levy fell on renewable and fossil power alike.

The author chose the whole levy, because the draft clauses' own paragraph 6 of Schedule 1A asks for "Climate change levy charged on supplies of electricity", and this raises the figure. The line counts the levy at its main rates; its Carbon Price Support rates, the carbon tax on fuel burnt to make electricity, sit in the carbon line. Because households do not pay it, it stays out of what households were charged on their own bills, and it carries no VAT. Above its 2001 rate the headline would be £243.7bn; with no levy, £239.9bn. The check is HMRC's own receipts, which the line equals (§5.3). Nothing settles a definition.

6.4 Power stations' unsubsidised share of grid and balancing charges

Power stations pay part of the grid and balancing charges, and this paper counts the part that no subsidy pays. Stations supported by the Renewables Obligation, Feed-in Tariffs or a Contract for Difference are taken to pay their share out of subsidy income, which this paper counts, so that part stays out: on that assumption, adding it would count the same money twice. This is a simplification: subsidised stations also earn from the market, so part of their share may come back through the price of power, and that part is not counted. Stations with no subsidy, such as gas, coal and nuclear, get their share back through the price of power, which this paper does not count beyond the carbon in it, so their part is counted as its own line (§8.6). The share is not split between the two groups from any record: the line is estimated, taking a subsidised and an unsubsidised station to pay the same per unit of output, by each year's share of output from stations with no subsidy. Report No. 1 counts the whole share through its price of power, and Annex B reconciles the two.

The stakes are £6.1bn of the headline. The author chose to count it, because it is an expense bill-payers paid that nothing else here counts, and this raises the figure. Without it the headline would be £252.4bn.

6.5 Suppliers' energy-saving schemes

Suppliers' energy-saving schemes, the obligations on suppliers to pay for insulation and efficient boilers, are not counted. Their cost is published only as an estimate, and it falls on gas bills as well as electricity bills, so the part on electricity bills cannot be read from a record. Report No. 1 estimates it, from the lower to the upper end of each scheme's published range, at £10.2bn to £11.5bn over 2002 to 2024. With them in, at the low end of that range and with the VAT on them, the headline would be £269.3bn. Report No. 3 counts the schemes whole, on gas and electricity bills together.

7 The amount for each scheme

Each scheme below has its amount for 2002 to 2024, how it is found and its label, with 2025 apart. Table 7.1 gathers them. The yearly bill is still rising: £22.0bn in 2024 and £24.3bn in 2025, provisional.

Table 7.1 The bill already paid by line, in 2024 prices, rounded separately. *The 2025 figures are provisional. Carbon is estimated, not modelled, for 2005 to 2012 (§3.5), and switching wind off is estimated for 2010 to 2013 (§7.4).

Line	2002–24	2025*	Label	Source
Direct lines	*£125.9bn*	*£12.4bn*		
Renewables Obligation	£92.4bn	£7.6bn	measured	Ofgem
Feed-in Tariffs	£20.1bn	£1.8bn	measured	Ofgem
Contracts for Difference	£10.9bn	£2.5bn	measured	LCCC settlement
Switching wind off	£2.4bn	£0.4bn	measured	Elexon; National Grid before 2016
Sizewell C levy	none	£0.1bn	measured	LCCC
Indirect lines	*£132.8bn*	*£11.9bn*		
Carbon in the price of power	£82.9bn	£6.6bn	modelled	Report No. 1's release
Climate Change Levy	£18.7bn	£0.8bn	measured	HMRC
High-voltage grid	£14.6bn	£1.8bn	modelled	NESO; Report No. 1's release
Balancing	£1.9bn	£0.7bn	modelled	NESO; Report No. 1's release
Replacing switched-off wind	£3.3bn	£1.0bn	estimated	Elexon
Power stations' share of grid and balancing, the part not paid out of subsidy	£6.1bn	£0.3bn	estimated	NESO; Report No. 1's release; DESNZ, LCCC and Ofgem for output (§8.6)
Capacity Market, the share counted	£0.9bn	£0.2bn	modelled	LCCC; Report No. 1's release
VAT	£4.4bn	£0.4bn	modelled	The rule in §9.2
All lines	**£258.6bn**	**£24.3bn**		

7.1 The Renewables Obligation

The Renewables Obligation is the largest line, £92.4bn from 2002 to 2024, measured. It is the certificates suppliers presented in each obligation year times what a certificate was worth, the buy-out price plus the share of the redistributed fund, from Ofgem's annual figures, with the mutualisation payments that made up suppliers' shortfalls in 2017-18 to 2021-22. Obligation years run from April and are put on calendar years by the rule in §9.3. In 2024 the line was £7.6bn. The 2025 figure, £7.6bn,

comes from Ofgem's outturn for 2025-26 and is provisional, because the late-payment fund has not yet been paid out. The Obligation runs across the United Kingdom, and it is counted there (§9.4).

7.2 Feed-in Tariffs

Feed-in Tariffs cost £20.1bn from 2010 to 2024, measured as Ofgem's levelisation fund. That is the generation payments, the export payments less the value of the exported power to suppliers, and the scheme's qualifying costs, shared among suppliers through Ofgem's levelisation, as Ofgem's annual reports record them, by scheme year from April. The line is Ofgem's figure (§5.3). In 2024 it was £1.7bn. The 2025 figure, £1.8bn, comes from the four quarterly levelisations of 2025-26 and is provisional, because Ofgem has not yet made its annual reconciliation. The scheme runs in Great Britain.

7.3 Contracts for Difference

Contracts for Difference cost bill-payers £10.9bn from 2016 to 2024, after the money generators paid back. The line is measured from LCCC's settlement: the top-ups paid when the market price is below a contract's strike price, less the money generators pay back when it is above. The opposing case is that the contracts now pay back. In 2022 generators under Contracts for Difference paid back more than they received, so the line is minus £0.4bn that year. LCCC's own reports, which count by financial year and in cash, record net receipts from generators of £133.5m and £137.4m in the last two quarters of 2021-22, the first such quarters in its history, and a net £8.6m collected from generators over 2022-23 (LCCC 2022, p.15; LCCC 2023, p.5).

The paybacks did not last. The line was £1.4bn in 2023 and £2.4bn in 2024, and on the figures so far £2.5bn in 2025, provisional. Whether the contracts pay back in later years is the bill still to come's question (chapter 12). By technology, offshore wind took £8.0bn of the 2016 to 2024 total and biomass conversion £2.7bn. Over the data's whole span, from the first payment to 27 October 2026, offshore wind's share is 74.5% and biomass conversion's 21.8%.

7.4 Payments to switch wind farms off

Bill-payers paid £2.4bn from 2010 to 2024 to have wind farms switch off, measured from 2014. The line is direct because the money goes to generators, though it reaches bills through the balancing charge (§8.1). From 2016 it comes from Elexon's settlement record. Elexon's open data service returns records from 6 November 2015 and none for the last half-hour of the day before, so the years 2010 to 2015 come from National Grid's own monthly reports of what it paid wind farms (National Grid 2017). National Grid counts every payment to a wind farm, whatever the reason for it, while Elexon's record holds bids accepted in the balancing market, so National Grid's count can be wider: 14% higher from August 2016 to March 2017. For the years before April 2013 its August 2013 report gives only one total for each year from April to March; the model spreads each total over the two calendar years it covers, and the four years 2010 to 2013 are estimated.

By year: £0.2m in 2010, £36.4m in 2011, £19.7m in 2012, £48.2m in 2013, £76.1m in 2014 and £128.8m in 2015, rounded separately. The cost of the power that replaced the switched-off wind is §8.2.

7.5 The Sizewell C levy, December 2025

Suppliers paid £82.2m of the Sizewell C levy in its first month, December 2025. In cash it was £85.4m, measured from LCCC's record of what suppliers actually paid, and provisional while settlement runs continue. It is a payment on bills, so VAT is counted on households' share of it (§9.2). It falls only in 2025; what the levy will cost from 2026 is in the bill still to come (§12.2).

7.6 Carbon in the price of power

Carbon in the price of power cost bill-payers £82.9bn from 2005 to 2024, modelled and, for 2005 to 2012, estimated. It is the price of an emissions allowance, and from April 2013 the Carbon Price Support rate, times the carbon intensity of the plant that set the price, times the volume of power, as Report No. 1's release computes it. Before 2005, when the EU's trading scheme began, power stations had no duty under it to hold allowances, so the line is zero. For 2005 to 2012 the allowance price is estimated, so those years are labelled estimated and carry the range of §14.2. In 2024 the line was £5.6bn. The 2025 figure, £6.6bn, is provisional: the part of it collected as tax rests on receipts from Carbon Price Support and UK allowance auctions in 2025 that are not yet final. §6.2 gives the split between tax collected and the rest.

7.7 The Climate Change Levy

The Climate Change Levy on electricity raised £18.7bn from 2002 to 2024, measured from HMRC's receipts. It is the levy at its main rates, charged on businesses' use of electricity (§6.3); its Carbon Price Support rates are in the carbon line. In 2024 it was £0.8bn, and in 2025, provisionally, £0.8bn, from HMRC's bulletin of March 2026. It is counted across the United Kingdom.

8 Grid, balancing and backup attributable to wind and solar

8.1 What is counted here

Every cost in this chapter is counted only above what the same system would have cost on the gas-led alternative. Part 2 of Schedule 1A asks for the costs of balancing, reinforcing the grid and holding capacity in reserve "to the extent attributable to the connection and operation of generating stations powered by wind or sunlight". No record says which part of a grid charge wind caused. The attribution is therefore this paper's assumption, argued in §8.4: what the system paid above the gas-led alternative is attributed to wind and solar. Each line below is printed whole beside the part counted, and the counted parts are modelled, except turn-up and power stations' share, which are estimated (§8.2, §8.6). Switch-off payments (§7.4), turn-up (§8.2) and balancing (§8.3) are one total, the balancing charge above the gas-led alternative with power stations' share taken out, split three ways, so none of the three is counted twice. So every figure in this chapter is an extra: what the system cost with wind and solar, beyond what a gas-led system would have cost.

8.2 Replacing switched-off wind: turn-up

When wind is switched off, other plant is paid to turn up and replace it, and this paper estimates that cost at £3.3bn from 2015 to 2024. The volume is a record: the wind farms' bids, their prices for cutting output, that the system operator flagged in each half-hour. What is estimated is which of that half-hour's accepted offers, other plant's prices for raising output, replaced the wind. Octopus Energy's Wasted Wind tracker states its turn-up method in one sentence: "For turn-up, the cost of buying the same amount of energy from other sources is estimated using real energy prices" (Octopus Energy 2026). This paper rebuilds that method from Elexon's settlement records, taking offers not flagged by the system operator first, then by the settlement record's sequence number, shared pro rata at the margin, and checks the result against Octopus's published monthly figures.

The range holds the volume and the set of offers fixed and changes only their order, cheapest first and dearest first: £3.2bn to £3.6bn. It is lopsided because the central order is already close to the cheapest. The line is capped at the balancing cost above the gas-led alternative less switch-off payments, so it can never exceed that. Over Elexon's measured window, from 6 November 2015 to 29 October 2026, the estimate is £5.7bn in cash. The model sets two cross-checks beside it, both counting only offers the system operator flagged as system actions from plant other than wind:

£6.2bn in all, and £3.9bn in the half-hours when wind was switched off. Neither is like for like with the estimate, and neither bounds it. The estimate prices offers accepted to balance energy first, which carry no such flag, while the flag also marks actions taken for voltage and inertia, so the first cross-check overstates turn-up caused by wind. The objection that turn-up counts balancing twice is met by §8.1: turn-up is one of the three parts of a single total. Replacing switched-off wind therefore cost about £3.3bn: an estimate with a narrow range, counted once.

8.3 Balancing

Bill-payers paid £23.1bn in balancing charges from 2002 to 2024, and this paper counts what lies above the gas-led alternative, in three parts: switch-off payments, turn-up and the balancing line. On the gas-led alternative the same charges would have come to £15.5bn. What lies between is the balancing cost attributable to wind and solar, and it is split three ways: switch-off payments, £2.4bn; turn-up, £3.3bn; and the rest, the balancing line, £1.9bn. Power stations' share of the charge is taken out of the three together, and the part of it that no subsidy pays is counted once, in §8.6.

The opposing case is that constraint costs are a network problem. NESO frames them so: constraints "can be thought of in the same way as congestion on our roads which cause bottlenecks", and "high quantities of new generation connecting to the system outpacing network build is driving constraint costs up" (NESO 2025, pp.25–26). NESO's account puts the cause in the new generation as well as in the network. NESO itself names "high wind outturn" as having amplified the effect of network outages in 2024-25, "causing us to take a greater volume of bid actions on wind generators" (NESO 2025, p.19). The gas-led alternative builds no wind or solar, so the balancing it would have needed is the yardstick, and the paper counts only what lies above it. So of the £23.1bn paid for balancing, the paper counts only the part a system without wind and solar would not have had to pay.

8.4 The high-voltage grid

How much of what bill-payers paid for the high-voltage grid is attributable to wind and solar? Bill-payers paid £50.6bn in transmission charges from 2002 to 2024; the gas-led alternative's grid would have cost £36.0bn; this paper counts £14.6bn.

The options. The central option counts the grid above the alternative's. A second counts the whole charge. A third counts none, on the view that the grid would have been renewed anyway. Ofgem's own split of the coming rise in a typical household's network charges puts £68 down to "business-as-usual spending", which includes renewing worn assets and the gas networks, against £30 for "the substantial additional investment needed to upgrade ET grid capacity to meet new demands and reduce constraint costs" (Ofgem 2025, p.12). ET is Ofgem's shorthand for electricity transmission.

The evidence. The alternative's grid is its 2002 to 2005 base carried forward on the price-control index, with renewal, as Report No. 1 builds it from the transmission owners' allowed revenues, and from 2010/11 the charge it is set against is revenue set before each year, not outturn. Ofgem names the shift in generation as a driver of the network's growth: "Output from fossil-fuelled power stations has reduced, replaced with low carbon generation sources … ET assets have thus had to be built in different locations, for example in coastal areas where wind resources are high" (Ofgem 2025, para 2.5).

The attribution, and the choice. The gas-led alternative builds no wind or solar. So the grid, balancing and backup above its own are what the system Britain actually built needed beyond the one it would otherwise have had, and the paper attributes that part to wind and solar because they are the plant the alternative leaves out. The objection is that interconnectors, renewal and rising demand drove spending too. Renewal sits inside the alternative's grid. The other drivers above it are not separated in any published figure, so the attribution is stated as an assumption, with no size

claimed for any one driver. The author chose the part above the alternative, which lowers the figure against the whole charge; the line's confidence is low.

The headline under each option. Centrally, £258.6bn. With grid and balancing both counted whole, £311.1bn. Counting none of the grid would take its line out of the headline. What would settle it is past transmission spending by cause, which no one publishes; Ofgem splits only the rise to come. So the paper counts £14.6bn of the £50.6bn paid for the grid: less than the whole charge, more than none. Its confidence in the figure is low, because no one publishes past grid spending by cause.

8.5 Capacity held in reserve: the Capacity Market's share

How much of the Capacity Market is attributable to wind and solar? Bill-payers paid £7.4bn through the Capacity Market levy from 2016 to 2024, measured, and this paper counts £0.9bn of it, modelled.

The options. The central option counts the share of the levy that net zero caused, taken from Report No. 1's model: 15.6% in 2024. A second takes the low end of that share, which gives £0.3bn. A third counts the whole levy, on the critic's ground that the market exists because of intermittent plant.

The choice made, and why. The whole levy is a choice of what to count, not an end of the line's range. The author chose the share, counted once under paragraph 10, with the whole levy printed beside it. This lowers the figure against the whole levy. The line's own range runs from the low share to the central one (§14.2).

The headline under each option. With the share, £258.6bn; with the whole levy, £265.2bn. The model reports no check specific to this choice. What would settle it is a published attribution of the need for capacity to intermittent plant, which this paper has not found. So the paper counts £0.9bn of the £7.4bn levy, the smaller figure, with the whole levy printed beside it.

8.6 Power stations' share of grid and balancing charges

Power stations' share of grid and balancing charges, the part not paid out of subsidy, cost bill-payers £6.1bn from 2002 to 2024, estimated. The line starts from what power stations paid for the grid and for balancing above the gas-led alternative, as Report No. 1's release holds it: £4.1bn for the grid and £4.5bn for balancing, switch-off payments and turn-up included, before any part is taken off. Each year's amount is then multiplied by the share of that year's output from stations with no subsidy: one less the output eligible for the Renewables Obligation or paid under Contracts for Difference or Feed-in Tariffs, over all output, from DESNZ's digest (Table 6.2), LCCC's daily records and Ofgem's annual reports. It fell from 98.5% in 2002 to 61.0% in 2024.

Power stations' share of the balancing charge is nil from April 2023, so the line for 2024, £278.6m, is the grid's alone. The figure for 2025, £313.4m, is provisional: Ofgem has not yet reported Feed-in Tariff output for 2025-26, so April to December carries 2024-25's forward, and the year's other output figures are used as first published. The line is labelled estimated, with low confidence, because the share is not split from any record. Its range reads that share two other ways. The low end, £5.7bn, counts every renewable station as subsidised. The high end, £6.3bn, leaves Feed-in Tariff output out, because those stations are small, sit on local wires and pay neither charge. The range enters the headline's, but sets neither end of it (§14.2).

A critic will say the share is a power station's own cost, already carried in the price of power. It is, but this paper counts nothing in the price except the carbon (§7.6), so the share inside the price is counted nowhere else. The subsidised stations' part, £2.4bn, is a step of Annex B's walk.

The estimate has four limits. "Paid out of subsidy" simplifies, as §6.4 says. The share is spread by output, although the grid charge falls mostly on capacity and differs by zone, which would probably make the unsubsidised part of the grid share smaller; the range does not cover this. The digest counts

the United Kingdom's output, which stands here for Great Britain's charges. And every station with no subsidy is taken to get its share back through the price in full.

9 Prices, VAT and method

9.1 Prices

Every figure is in 2024 prices, using the Office for National Statistics' CPIH index, unless it is marked cash. Each year's pounds are multiplied by the ratio of the 2024 index to that year's, so a pound paid in 2002 counts as 1.76 pounds of 2024. Subsection (3)(a) of the draft clauses asks for each amount in the prices of the year as well as of a base year. In pounds as paid, the bill already paid from 2002 to 2024 is £209.9bn. The bill still to come is in 2024 prices before discounting, and its present values are real, to 1 January 2026 (§3.3).

9.2 VAT

VAT is counted on households' share of every line except the Climate Change Levy, at the reduced rate of 5% except while that rate is cut to zero. The Value Added Tax Act 1994 sets households' electricity at the reduced rate (s.29A and Schedule 7A), so the VAT on what climate policy adds to their bills is money paid through it, and subsection (3)(b) asks for it. The bill already paid ends in 2025, before the cut, so it counts the reduced rate in every year.

For a time the rate is 0%. Articles 1(2) and 3 of an order, the Value Added Tax (Supplies of Domestic Electricity) Order 2026 (SI 2026/987), zero-rate electricity for domestic use in Great Britain for supplies made from 1 October 2026 to 31 March 2027. Budget 2026 then announced an extension "for another three months, until July 2027" (HM Treasury 2026b, para 3.4), but at the cut-off date it was not yet law. The bill still to come counts the zero rate in law with the extension Budget 2026 announced, so it takes the rate as zero from 1 October 2026 to 30 June 2027 and 5% otherwise. The end date follows the Budget, which would extend the zero rate "to 1 July 2027" (HM Treasury 2026b, para 6.210). Had the cut ended with the period in law, the bill still to come would be £34.8m larger, all of it VAT in the extension's three months. Within each year the model spreads the cut by days, not by how much electricity households use in each month, and that is an assumption.

No VAT is counted on businesses' share, or on the Climate Change Levy, which households do not pay. In the bill already paid, households' share of the lines charged was 36.5% in 2024, as Report No. 1's model holds it; the VAT line comes to £4.4bn over 2002 to 2024. The bill still to come uses a different share, from DESNZ's figures for households' share of final consumption, in the model's words: "households′ 2025 share, 34.9%, held (the RO at DESNZ's 41% throughout)". The two differ because one is a share of the electricity suppliers sold in each past year and the other a share of consumption held from 2025. *Held* means that the 2025 share is kept for every later year. The Obligation is split instead at the share of its cost that DESNZ projects will be levied on households, the share the Budget's costing of the Exchequer's part uses (HM Treasury 2025, p.12).

9.3 Years

Figures published by financial or obligation year are put on calendar years by each line's own rule. For the Renewables Obligation and Feed-in Tariffs the rule is to key each obligation or scheme year to the calendar year in which it starts, so that each year's figure is the publisher's own: the figure for 2024 is the year from April 2024. Lines recorded by day, month or quarter, such as the Contracts for Difference and the Climate Change Levy, are summed to calendar years. Prices follow the same periods: an April-to-March year is deflated three quarters at its first year's index and one quarter at the next. The series' net measure counts both schemes by calendar year, and Annex B shows what that moves.

9.4 Each line's coverage

The Renewables Obligation and the Climate Change Levy, and the VAT on the Obligation, are counted across the United Kingdom, as each runs, and every other line in Great Britain. The whole electricity bill is the United Kingdom's, so the share divides a count that is partly for Great Britain and partly for the United Kingdom by the United Kingdom's bill. Per household divides each scheme by its own area's households, the two UK-wide lines by the United Kingdom's and the rest by Great Britain's, which gives what a household in Great Britain was charged (Annex A). The draft clauses keep "Great Britain" (§2.1). A statement for Great Britain alone would leave out Northern Ireland's part of the two UK-wide lines, a part this paper does not size.

10 Every year from 2002

10.1 The table and the chart

The bill already paid rose from £1.7bn in 2002 to £22.0bn in 2024, in 2024 prices. Table 10.1 gives each year's direct and indirect lines, the total and its share of the whole electricity bill, and Figure 10.1 draws the total, with the provisional year in its own column. These are the figures subsection (4) of the draft clauses would ask the first statement to give.

Table 10.1 The bill already paid by year, 2024 prices, rounded separately. 2025 is provisional and outside the headline.

Year	Direct	Indirect	All lines	Share of the bill
2002	£0.4bn	£1.3bn	£1.7bn	6.8%
2003	£0.7bn	£1.1bn	£1.8bn	7.4%
2004	£0.8bn	£1.0bn	£1.8bn	6.4%
2005	£1.0bn	£4.2bn	£5.2bn	15.5%
2006	£1.2bn	£3.7bn	£4.9bn	12.1%
2007	£1.4bn	£1.4bn	£2.7bn	6.5%
2008	£1.6bn	£4.6bn	£6.2bn	12.9%
2009	£1.7bn	£5.4bn	£7.1bn	15.0%
2010	£1.9bn	£4.7bn	£6.6bn	14.8%
2011	£2.3bn	£3.8bn	£6.1bn	14.0%
2012	£3.5bn	£2.6bn	£6.1bn	13.6%
2013	£4.5bn	£2.8bn	£7.3bn	15.8%
2014	£5.4bn	£4.3bn	£9.7bn	21.4%
2015	£6.6bn	£6.3bn	£12.8bn	28.5%
2016	£7.7bn	£6.8bn	£14.4bn	33.0%
2017	£9.3bn	£6.3bn	£15.6bn	35.4%
2018	£10.6bn	£7.0bn	£17.5bn	37.5%
2019	£11.7bn	£8.6bn	£20.3bn	41.6%
2020	£12.3bn	£8.5bn	£20.8bn	44.6%
2021	£10.4bn	£11.1bn	£21.6bn	41.9%
2022	£8.4bn	£15.7bn	£24.1bn	37.6%
2023	£10.5bn	£11.9bn	£22.4bn	29.9%
2024	£12.1bn	£9.9bn	£22.0bn	33.2%
2025, provisional	£12.4bn	£11.9bn	£24.3bn	38.7%

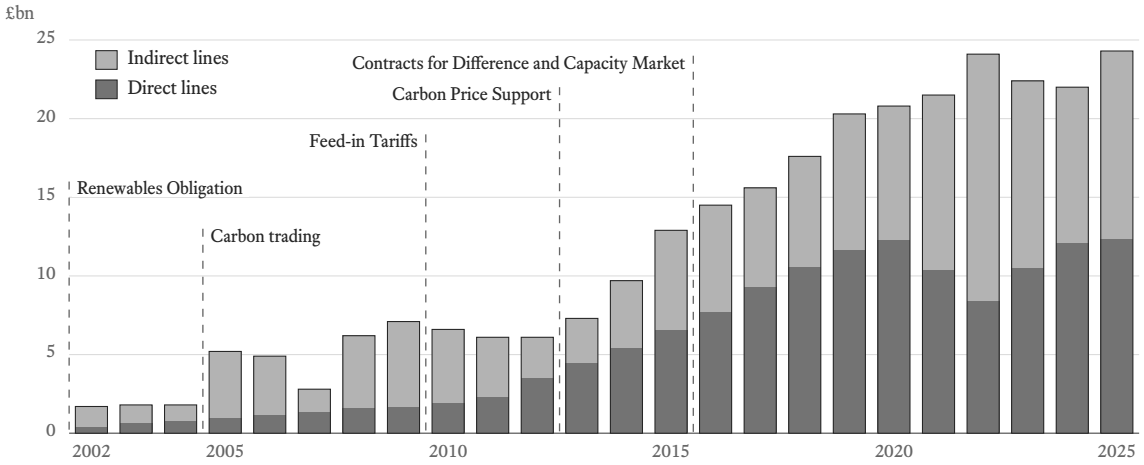

Figure 10.1 The bill already paid by year, direct and indirect lines, £bn, 2024 prices. Dashed lines mark the year each scheme began to reach bills. 2025 is provisional.

10.2 What changed, and when

The bill grew in steps, each one a scheme starting or a price changing. The Renewables Obligation began in 2002. Carbon entered in 2005 with the European trading scheme, which is why the total jumped from £1.8bn in 2004 to £5.2bn in 2005, and fell back to £2.7bn in 2007, when the price of the first period's allowances collapsed; Carbon Price Support was added from April 2013. Feed-in Tariffs and switch-off payments began in 2010, when the total was £6.6bn. The Contracts for Difference and the Capacity Market reached bills from 2016, by when the total had grown to £14.4bn, and by 2020 it was £20.8bn.

2022 was the year of high prices. The total reached £24.1bn, because the carbon line rose to £11.4bn while the Contracts for Difference paid money back (§7.3). As prices eased the paybacks ended, and the total was £22.4bn in 2023 and £22.0bn in 2024.

10.3 The share of the bill, and the 2020 peak

The share of the electricity bill paid through climate policy peaked at 44.6% in 2020. It was 6.8% in 2002 and 33.2% in 2024. A critic will say the peak is a denominator effect, and in part it is: the whole bill fell from £48.9bn in 2019 to £46.7bn, while the money paid through climate policy rose from £20.3bn to £20.8bn. The share rose partly because the bill fell. The amount, which is what the statement would report, did not fall.

10.4 2025, the provisional year

The bill already paid in 2025 was £24.3bn, on the figures published so far. Of that, £13.2bn is measured, £9.8bn modelled and £1.4bn estimated, rounded separately, with no range worked out for it. Every 2025 figure is provisional, and six lines wait on later figures. The Renewables Obligation awaits the payment of its late-payment fund; Feed-in Tariffs, Ofgem's annual reconciliation; carbon, the final receipts from Carbon Price Support and UK allowance auctions; the Climate Change Levy, HMRC's final receipts; the Sizewell C levy, its later settlement runs; and power stations' share, Ofgem's Feed-in Tariff report for 2025-26. It was 38.7% of a whole bill of £62.7bn. The author chose to print no total for 2002 to 2025, so that revising 2025 never changes the headline.

11 Open data

11.1 How anyone reruns the figures

Anyone can rerun both models from their published releases and get every figure in this paper to a stated number of significant figures. Both are published as tagged releases with this paper, and every figure can be rebuilt from each release's code and saved inputs and checked against the frozen figures file whose fingerprint the title page gives. For the bill still to come, on the same kind of machine the rerun matches its file exactly; across different kinds of processor the last binary digits of some numbers differ, so the promise is ten significant figures. The register of claims, which lists every claim that rests on a published source, with a saved copy of the source and the exact page, table or paragraph, is published with the paper, in its public repository. Corrections are logged on a public corrections page, and each model's changes in its change log. That is what subsection (6) asks of the Secretary of State: the data and calculations "in a form that allows the amounts to be reproduced".

11.2 What the published data hold

The published data hold more than this paper prints: every line by year, and the bill still to come contract by contract. For the bill already paid they hold each line for every year it ran from 2002 to 2025, in cash and in 2024 prices, with its label, its range where it has one, the Contracts for Difference by technology, the household figures by year, every check against a published total, and the walk to the series' net measure year by year. For the bill still to come they hold the payments of each contract, station or group for every year, split among households, businesses and taxpayers, with the in-between tables behind them, and the result of every one of the eighteen brackets of §12.6.

12 The bill still to come

12.1 What the statement shows

Contracts, accreditations and entitlements granted by 9 November 2026 oblige bill-payers and taxpayers to pay £172.3bn from 2026, in 2024 prices before discounting. That is the figure subsection (7) would ask the statement to show. This chapter takes it line by line (§12.2), then built and not yet built (§12.3), who pays (§12.4), the price of power it rests on (§12.5), how far each disputed assumption moves it (§12.6) and how it compares with the official forecasts (§12.7).

12.2 Line by line

The Renewables Obligation is the largest line still to come, then the renewable Contracts for Difference and the two nuclear stations. Table 12.1 gives each line undiscounted and at both discount rates, split between built and not yet built, with the last year in which it pays. Every line is a direct line except the Capacity Market's share and VAT; the other indirect lines of the bill already paid are not obligations fixed today, and are left out (§1.2).

Table 12.1 The bill still to come by line, 2024 prices; present values to 1 January 2026; rounded separately. VAT is at 0% from 1 October 2026 to 30 June 2027 (§9.2).

Line	Undiscounted	Green Book	Commercial	Built	Not yet built	Last year
Renewables Obligation	£47.8bn	£43.0bn	£36.3bn	£47.8bn	none	2037
Contracts for Difference, renewable	£38.7bn	£33.0bn	£24.8bn	£23.1bn	£15.6bn	2052
Sizewell C	£31.1bn	£28.6bn	£20.3bn	none	£31.1bn	2099
Hinkley Point C	£30.1bn	£19.2bn	£12.1bn	none	£30.1bn	2064
Feed-in Tariffs	£16.4bn	£14.4bn	£12.0bn	£16.4bn	none	2042
Capacity Market, the share counted	£3.0bn	£2.6bn	£2.1bn	£2.0bn	£0.9bn	2044
Biomass bridging contracts	£2.6bn	£2.4bn	£2.1bn	£2.6bn	none	2031

Line	Undiscounted	Green Book	Commercial	Built	Not yet built	Last year
VAT	£2.7bn	£2.2bn	£1.7bn	£1.4bn	£1.3bn	2099
All lines	**£172.3bn**	**£145.5bn**	**£111.5bn**	**£93.3bn**	**£79.1bn**	

Each line ends with its obligation. The Renewables Obligation issues no certificates for electricity generated on or after 31 March 2037 (for England and Wales, Renewables Obligation Order 2015, art. 44; the Scottish and Northern Ireland orders set the same date), so it ends in 2037. The last renewable Contracts for Difference end in 2052. Hinkley Point C's contract runs to 2064, at a strike price of £89.50 per MWh in 2012 money (Hinkley Point C contract for difference, the Initial Strike Price clause). Feed-in Tariffs end in 2042, the Capacity Market's signed agreements in 2044 and the biomass bridging contracts in 2031. Sizewell C runs to 2099, the end of its licence's operating period, sixty years after its scheduled start on 29 December 2039; the author chose to write its asset off evenly over those sixty years. Figure 12.1 shows the bill by year, with the end of each line marked.

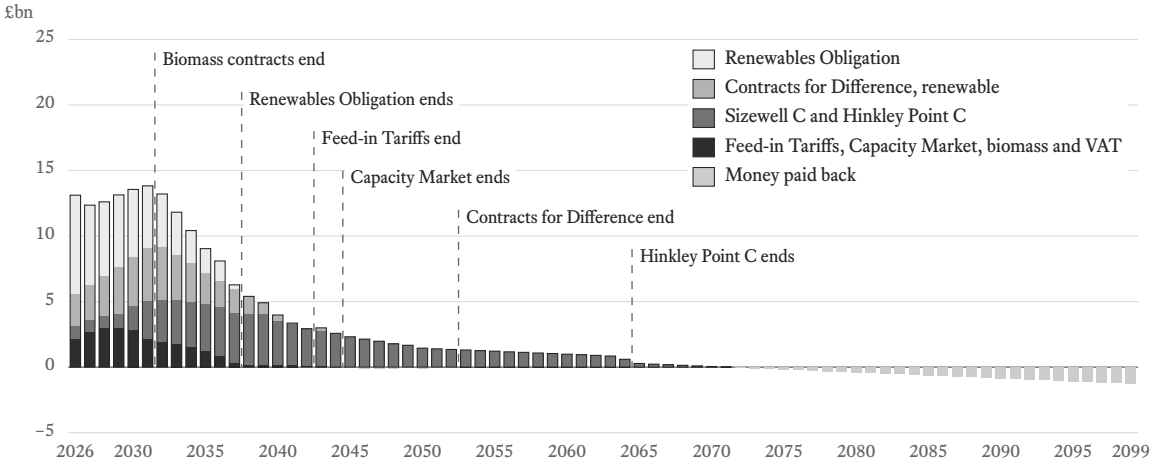

Figure 12.1 The bill still to come by year, 2026 to 2099, £bn, 2024 prices before discounting, its lines in four groups. Dashed lines mark the end of the last year each line pays; Sizewell C pays to 2099.

Some years pay money back. In the central case the renewable Contracts for Difference pay money back in some years from 2042, and Sizewell C from 2072; the totals are net of it. Sizewell C pays back in years when its sales of power earn more than the revenue its licence allows, and it pays the difference to the levy's counterparty, as a generator under a Contract for Difference does. Those years come to −£0.6bn for the renewable Contracts for Difference, in 2042, 2045-2052, and −£18.1bn for Sizewell C, in 2072-2099.

12.3 Built and not yet built

£79.1bn of the bill still to come is owed to projects not yet built. They are Hinkley Point C, Sizewell C and 457 of the 556 renewable Contracts for Difference, with the Capacity Market agreements for new plant. The other £93.3bn, rounded separately, is owed to projects already commissioned. The objection is that counting unbuilt contracts overstates the bill, because some will never be built. A signed contract is an obligation, so the statement should show it. To show how far abandonment could move the figure, one bracket takes out unbuilt contracts at the rate past ones were ended, in the model's words "unbuilt renewable CfDs cut by their technology's AR1-AR4 termination rate (all technologies' rate where fewer than ten contracts)", where CfDs are Contracts for Difference and AR1 to AR4 their first four allocation rounds. That gives £169.6bn, a swing of £2.7bn.

12.4 Who pays: businesses most

Businesses would pay £103.8bn, households £59.1bn and taxpayers £9.5bn, each rounded separately. The split of what bill-payers pay follows households' share of electricity, in the model's words "households' 2025 share, 34.9%, held (the RO at DESNZ's 41% throughout)", as §9.2 explains. Taxpayers have a part for two reasons. From 1 April 2026 the Exchequer funds three quarters of the Renewables Obligation due to be levied on households' bills in 2026-27 to 2028-29 (HM Treasury 2025, p.12), which puts £8.3bn of the Obligation on taxpayers. And from 1 April 2027 the British Industrial Competitiveness Scheme will "exempt eligible businesses in Great Britain from the indirect costs of the Renewables Obligation, Feed in Tariffs and Capacity Market schemes" (HM Treasury 2026b, para 6.31). The Subsidy Advice Unit's report gives the scheme's expected cost: "up to £600 million per year, operating between 2027 and 2035" (SAU 2026, para 1.8). The model takes the ceiling, £600 million a year, as its central case; a lower cost would not change the £172.3bn, only who pays.

That second exemption is why Feed-in Tariffs, £1.0bn, and the Capacity Market, £0.1bn, also have taxpayers' parts, rounded separately. A cost moved off bills is not a saving: it moves from bill-payers to taxpayers, and the statement would show both.

12.5 The price path

What the Contracts for Difference cost depends on the wholesale price, and this paper uses DESNZ's central projection of it. A contract pays the generator the gap between its strike price and the market price, so the lower the price, the larger the bill. *DESNZ's central price path* is the wholesale electricity price DESNZ projects in its energy and emissions projections, from the reference fossil fuel prices of their Annex M: £57.91 per MWh in 2030, as the model restates it in 2024 consumer prices. Its low and high paths, £46.51 and £76.64 per MWh in 2030 in DESNZ's own 2024 prices, which the model restates in 2024 consumer prices as £44.66 and £73.61, are two of the brackets in §12.6. Prices after 2050 are held at their 2050 level. The author chose DESNZ's set because the series needs one set of prices, with low, central and high cases, for every report, and the OBR's forecast runs only to 2031-32 while the contracts run into the 2060s.

That 2050 price, £105.32 per MWh, is the highest on the path, because DESNZ's carbon price for power keeps rising to 2050 while its gas price is flat from 2040 (DESNZ, Annex M). DESNZ's published wholesale price projections (Annex M) run no further than 2050, so this paper also sets out an alternative, not a forecast: the path's average over 2026 to 2050, £75.59 per MWh, held from 2051. Lower prices then mean larger top-ups for Hinkley Point C and a larger Sizewell C charge, so the bill still to come rises to £221.6bn, and Sizewell C pays back £2.8bn in 2089 to 2099, against £18.1bn in 2072 to 2099 in the central case. A price above 2050's is not tested, because the central case already holds the path's peak.

12.6 How far each assumption moves it

Four assumptions move the bill still to come further than any others: the price of power, the price after 2050 (§12.5), Sizewell C's return after 2039, and Sizewell C's cost. Each of eighteen disputed assumptions was changed on its own, the rest held at central, and Figure 12.2 ranks them by how far each moves the total. Each change is a *bracket*: the assumption set at a stated alternative on one side of the central value or both. The range of §1.2 is the lowest and highest result across all eighteen. Table 12.2 gives the settings of the twelve not set out below or in §12.3.

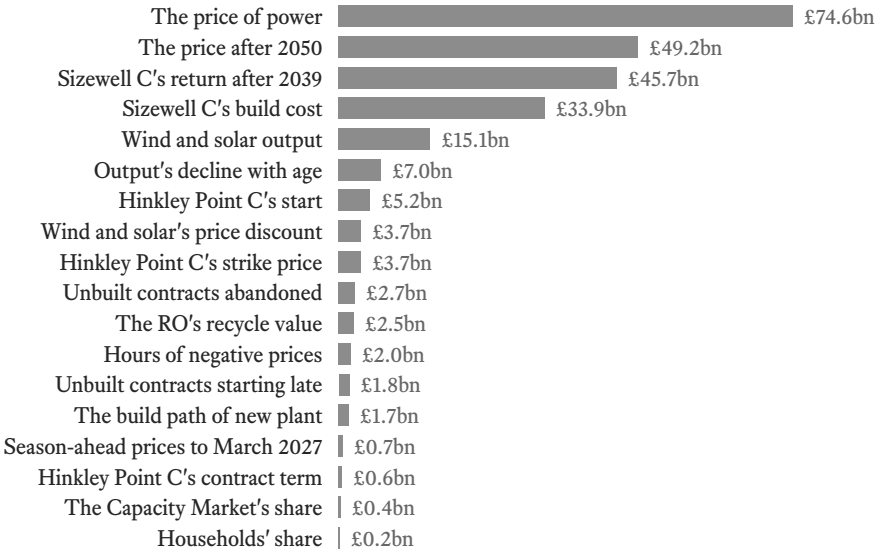

Figure 12.2 How far each assumption moves the bill still to come: the swing between each bracket's two results, £bn, 2024 prices before discounting, ranked.

Table 12.2 The settings of the twelve brackets not set out in the text, in the model's words. EEP: DESNZ's energy and emissions projections. FES: NESO's Future Energy Scenarios. For the two slope brackets, each other setting is one end of the named interval around a slope fitted to eight years of Britain's record, except that a gentler end past zero is held flat.

Bracket	What it changes	Central	Other setting
The price after 2050	The price of power from 2051 to 2099 (§12.5)	DESNZ's central price path to 2050, then its 2050 price held to 2099	DESNZ's central price path to 2050, then its average over 2026 to 2050 held to 2099
Season-ahead prices to March 2027	The price of power to March 2027	DESNZ's central price path	season-ahead prices to March 2027, then DESNZ's central price path
Wind and solar's price discount	The share of the average power price that wind and solar farms earn, as their share of national demand plus embedded output grows	fitted slope	gentler end of the 95% interval (solar held flat: its gentler end is past zero); steeper end of the 95% interval
Hours of negative prices	How the hours of negative prices change as wind and solar's share of national demand plus embedded output grows	fitted slope	gentler end of the 95% interval; steeper end of the 95% interval
The build path of new plant	How fast wind and solar's share of output grows	DESNZ's EEP build path	NESO FES 2025 Falling Behind; NESO FES 2025 Holistic Transition
The RO's recycle value	What each certificate earns from the Obligation's buy-out fund, as a share of the buy-out price	11.8%	8.8%; 14.6%
Unbuilt contracts starting late	When contracts not yet built start	LCCC's expected start dates	unbuilt allocation-round contracts start late by their round's measured delay (the mature rounds' average where fewer than ten measured)
Hinkley Point C's start	Years from its expected start	0	−1; 2
Hinkley Point C's strike price	Its strike price, per MWh in 2012 money	£89.50	£92.50
Hinkley Point C's contract term	When its contract's term starts	35 years from the earlier of start and the target commissioning window's end	35 years from start
The Capacity Market's share	Net zero's share of the Capacity Market	14.6%	13.6%; 15.6%
Households' share	Households' share of what billpayers pay	households' 2025 share, 34.9%, held (the RO at DESNZ's 41% throughout)	DESNZ's projected share by year (the RO at DESNZ's 41% throughout)

The price of power. Will power prices follow DESNZ's central path? The options are DESNZ's low price path, DESNZ's central price path and DESNZ's high price path. On the low path the bill still

to come is £221.8bn, and on the high path £147.2bn, a swing of £74.6bn, the largest of the eighteen. The central case uses the official central path, as the series does in every report. Only the prices that turn out will settle it.

Sizewell C's return after 2039. What return will Sizewell C's owners be allowed once its return is set by review? Its licence sets an initial return of 6.73% a year in real terms until its post-construction review is decided; Ofgem sets the return at that review and then at each periodic review (Sizewell C licence, special conditions, the definitions of the initial WACC and the Pre-PCR Phase, and Special Condition 49). The central case holds 6.73% beyond 2039, as an assumption; the low case falls to the Green Book rate, 3.00%, which gives £126.6bn, a swing of £45.7bn. No higher return is tested, because no published source sets one for the years after review: Ofgem says it will set that return in line with the approach and method it uses for gas and electricity networks, unless factors specific to the nuclear regime justify otherwise (Ofgem 2023, para 4.9), and the NAO finds Sizewell C's investor returns already above those typical of other utility sectors (NAO 2026, para 2.29). The first periodic review will settle it.

Sizewell C's cost. What will Sizewell C cost to build? The central case is £40.5bn, the low £38.0bn and the high £47.72bn, in the licence's real prices of 2024-25, its base year, with the asset base on its first day. The high case is the licence's Higher Regulatory Threshold, "the maximum amount of capital that the licensee is required to invest" (Sizewell C licence, special conditions, definitions). The results are £163.6bn and £197.5bn, a swing of £33.9bn. Cost above the threshold is not counted here (§15.1). The final cost will settle it.

The next two move it less. Wind and solar output, with the high case at DESNZ 2023 load factors for CfD wind and solar, swings it by £15.1bn. How fast that output declines with age, from wind 0.17% a year, solar PV 0.5% to wind 1.8% a year, solar PV 0.8%, swings it by £7.0bn. The range is £126.6bn to £221.8bn before discounting, and £124.4bn to £173.2bn at the Green Book rate.

12.7 Against the official forecasts: the gap is in the price

For 2026 to 2031 the model's figure for the Contracts for Difference is between 1.32 and 2.54 times the OBR's. For the other lines the two are close in 2026: the Renewables Obligation is 0.96 times the OBR's figure and Sizewell C 1.09 times; the wider gaps in later years are explained in Annex B. The gap is in the price assumption, not the contract book. Run at a flat market price, the model meets the OBR's 2026 figure for the Contracts for Difference at £109.59 per MWh in 2024 prices, where DESNZ's central path for 2026 is £75.26.

LCCC's own forecast says the same. For October 2026 to March 2027 the model's renewable Contracts for Difference are 2.33 times LCCC's forecast; run at LCCC's baseload market reference price for winter 2026, £114.50 per MWh in cash, the model is 1.02 times it (LCCC 2026). Annex B gives the written explanation of every check whose gap is wider than the model's own margin, 15%.

The opposing case is that the contract book will pay back when prices rise, so the bill still to come overstates what will be paid. A proponent states the mechanism: "generators get a subsidy if wholesale power prices are low, but pay back to consumers when prices are high" (Gross, MacIver and Blyth 2022, p.2). But on DESNZ's high price path the bill still to come is still £147.2bn, and the paybacks the central case already expects are netted in it (§12.2). The model meets both lower figures only at prices above the official central path (Annex B); if such prices come, the bill will be lower, and the yearly check of §13 would show it.

12.8 What comes next in the series

Report No. 3 starts from this figure.

13 Who checks the statement

13.1 An independent body, as the OBR checks the public finances

The forward statement should be checked each year by an independent body, in the way the Office for Budget Responsibility examines the public finances. The OBR shows how such a duty can be framed. Its main duty is "to examine and report on the sustainability of the public finances" (Budget Responsibility and National Audit Act 2011, s.4(1)). It "has complete discretion in the performance of its duty", subject to the rest of that section and to sections 6 and 7 (s.5(1)), and "must perform that duty objectively, transparently and impartially" (s.5(2)). Subsection (9) of the draft clauses asks for the same kind of examination of one estimate: a person independent of the Secretary of State reports each year on whether the estimate of the bill still to come is reasonable and how it differs from the last, and the report goes before Parliament.

The clause names no body. The OBR is the example, not the choice, so that Parliament can give the task to whichever body suits it, and Report No. 3, which asks for a wider statement of the cost of net zero, stays free to propose its own.

13.2 Why the forward figure needs a check

The forward statement rests on prices and output no one yet knows, estimated by the department that signs the contracts. How much that matters is measured in chapter 12. The price of power alone swings the bill still to come by £74.6bn, and Sizewell C's return after 2039 by £45.7bn (§12.6). This paper's figure for the Contracts for Difference in 2027 is 2.54 times the OBR's (§12.7). A figure that can move that far on one assumption, set by the department whose contracts it values, is the kind of figure an independent check exists for. The check would make the estimate's assumptions public and tested each year.

13.3 The objection, and the answer

The strongest objection is that the OBR already forecasts the levies and Parliament already has its numbers, so a second examiner would duplicate work and add expense for little gain. The answer is that the OBR's forecast covers some schemes, to 2031-32, as tax receipts, while the forward statement covers every contract to its end. And the examination need not start from nothing. Subsection (6) requires the data and calculations to be published, so the check reviews workings anyone can rerun; an existing body could take it on. What the statement and its check would cost the Government is not estimated in this paper.

14 How sure

14.1 Each line, graded

Each line carries one of three labels and a confidence, and Table 14.1 gives both. The labels are those of §3.5. The confidence, high, medium or low, is the grade the model gives each line; the lowest are the grid, balancing and turn-up lines and power stations' share, which rest on the gas-led alternative or on an estimate of which plant replaced which. By label, £144.5bn of the 2002 to 2024 headline is measured, £84.3bn modelled and £29.8bn estimated.

Table 14.1 Each line of the bill already paid, its label, its confidence and its range. The bill still to come is modelled throughout.

Line	Label	Confidence	Range, 2002 to 2024
Renewables Obligation	measured	high	none: a record
Feed-in Tariffs	measured	high	none: a record

Line	Label	Confidence	Range, 2002 to 2024
Contracts for Difference	measured	high	none: a record
Switching wind off	measured	high	none: a record (2010 to 2013: yearly totals spread over calendar years, so estimated, with no range worked out)
Sizewell C levy, 2025	measured	high	none: a record
Climate Change Levy	measured	medium	none: HMRC's receipts
Carbon in the price of power	modelled	medium	£59.1bn to £97.4bn, how fully the charge passed into the price; £78.1bn to £88.3bn, the 2005 to 2012 allowance price
High-voltage grid	modelled	low	none in the published figures; a case without it (§14.2)
Balancing	modelled	low	none in the published figures; a case without it (§14.2)
Replacing switched-off wind	estimated	low	£3.2bn to £3.6bn, the order of offers
Capacity Market, the share	modelled	medium	£0.3bn to £0.9bn, the low share to central
Power stations' share of grid and balancing, the part not paid out of subsidy	estimated	low	£5.7bn to £6.3bn, every renewable station subsidised to Feed-in Tariff output left out
VAT	modelled	medium	none: follows the lines

14.2 The ranges, and what each is

Four lines of the bill already paid carry a range, carbon carries two, and the bill still to come carries one as a whole. Carbon's first range runs from £78.1bn to £88.3bn, because its allowance price for 2005 to 2012 is estimated and the range takes, for each year, the lowest and highest of the EEA's price and the prices at which allowances were recorded changing hands. Replacing switched-off wind runs from £3.2bn to £3.6bn, because the record shows which wind was switched off but not which offers replaced it. The Capacity Market runs from £0.3bn at the low share to its central £0.9bn; the whole levy is a counting option (§8.5), not the top of this range. Power stations' share of grid and balancing charges runs from £5.7bn, with every renewable station counted as subsidised, to £6.3bn, with Feed-in Tariff output left out (§8.6).

Carbon's second range is for how fully the charge passed into the price of power, and it runs from £59.1bn to £97.4bn. The central case is that it passed in full, as the government's own estimates of policy costs assumed (DECC 2014, p.62). Published studies set the other two settings, period by period. For 2005 to 2012 they are 60% and 110%: the low end of the 60% to 100% the study found for Germany and the Netherlands, from 2005 market data and model runs (Sijm, Neuhoff and Chen 2006), and the 109% found for the UK's year-ahead market in 2008 to 2012, rounded up (Castagneto-Gissey 2014, abstract).

For 2013 to 2020 the settings are 75% and 120%, Britain's own estimates for the allowance price over 2015 to 2018 (Guo and Castagneto Gissey 2021, Table 4) and for the Carbon Price Support over 2015 to 2020 (Guo and Newbery 2021, §7.2); neither study rejects full pass-through. Each end applies one study's estimate to the whole carbon line, the allowance's to the Carbon Price Support too and the Support's to the allowance, so the range is wider than either study alone. Those settings are carried forward to 2021 to 2025, a judgement. A study for Ofgem found no robust rate for carbon in Britain over 2012 to 2017 (Castagneto Gissey and others 2018, §2.1.2), but that is a failure to measure, not a low rate.

How fully the carbon charge passed into the price, the carbon price of 2005 to 2012, the Capacity Market's share and the split of power stations' share of grid and balancing charges, each changed on its own, give the headline's range, £234.4bn to £273.4bn, and the pass-through sets both ends. Turn-up's range moves only the split between turn-up and the balancing line, not their total, so it

cannot move the headline. The bill still to come runs from £126.6bn to £221.8bn (§12.6). None of these is a statistical confidence interval, and none comes from changing every line at once.

A reviewer may ask which lines have no range, and why. The measured lines are records, so they have none. The grid and balancing lines rest on the gas-led alternative, which has no range in the published figures, so the paper prints a case without them instead: with the grid line, the balancing line and power stations' share left out, nor their VAT, but switch-off payments and turn-up kept, the headline would be £235.6bn, £23.0bn less.

The headline moves further through the choices of what to count than through any of these ranges. Figure 14.1 shows it under each choice, one changed at a time; Table 3.1 says where each is argued.

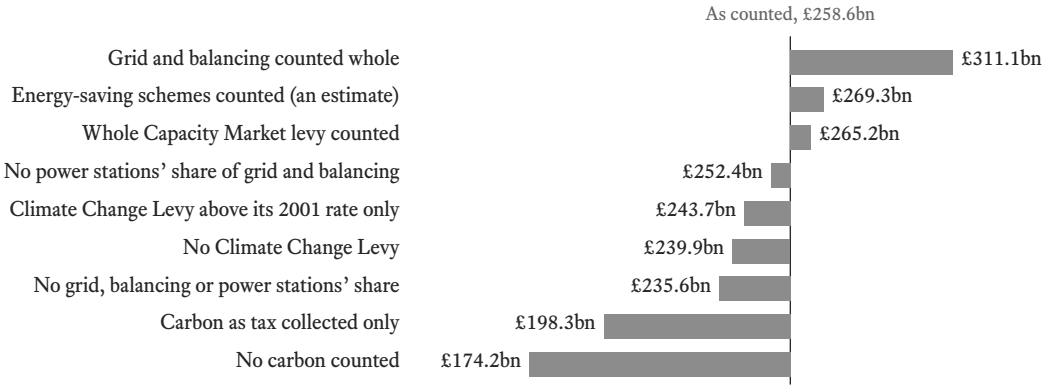

Figure 14.1 The bill already paid, 2002 to 2024, under each choice of what to count, one changed at a time, 2024 prices. The rule is the headline as this paper counts it.

14.3 What would narrow them

Two published events would narrow a range. In the bill still to come, Hinkley Point C's first power would fix when its contract starts, and Sizewell C's first periodic review its return after 2039, the bracket that sets the range's low end. In the bill already paid the ranges rest on past records, so they narrow only if a fuller record of those years appears. Two things that carry no range would firm up too: the provisional 2025 figures, with HMRC's final receipts from Carbon Price Support, DESNZ's final figures for UK allowance auctions and Ofgem's reconciliation of Feed-in Tariffs for 2025-26; and the grid line, which would firm up only with a figure no one publishes: past transmission spending by cause.

15 What is not counted

15.1 Would raise the figure

Counting any of these would raise the figure. Most are left out because this paper counts climate policy on electricity bills through contracts, accreditations and entitlements already granted, and each belongs to the report that counts it.

- **Costs on gas bills.** What climate policy costs through gas bills is outside an electricity count; Report No. 3 counts it.
- **Heat, transport and industry.** Climate policy outside electricity, from heat pumps to vehicles and industrial processes, is Report No. 3's.
- **Sizewell C above its higher threshold.** Any cost of building Sizewell C beyond the capital its licence requires the owners to invest is not counted here (§12.6).
- **Lost output from dearer power.** What industry and households gave up because electricity cost more is a real loss that no bill records. It is left to Report No. 3.

- **Auctions not yet held, and costs legislated but not contracted.** The bill still to come counts only what contracts, accreditations and entitlements already granted oblige anyone to pay (§3.3); future rounds are Report No. 3's.
- **Carbon, the levy, the grid and balancing from 2026.** The carbon charge in the price of power rests on carbon prices that no contract fixes, and the Climate Change Levy on rates Parliament sets in Finance Acts. The grid already built for wind and solar is paid off through network charges under Ofgem's price controls, an entitlement this paper does not value; balancing, switching wind off and turning other plant up are paid as they arise. All are left to Report No. 3.
- **Power stations' share of grid and balancing charges paid out of subsidy.** Left out because the subsidy taken to pay it is already counted (§6.4). Report No. 1 counts this part, £2.4bn, inside its price of power (Annex B).
- **Suppliers' energy-saving schemes.** Left out because the part that falls on electricity bills cannot be read from a record (§6.5). Report No. 1 estimates it at £10.2bn to £11.5bn over 2002 to 2024. Report No. 3 counts the schemes whole.

15.2 Would lower it, or a critic would net it

Some items a critic would take off the figure, and each is named here as an offset. None is netted, because each answers a different question from what was paid through each scheme.

- **What the policies changed in the price of power.** A critic would net the fall in the wholesale price that wind and solar are said to have brought. That is the net question, and §1.4 says how Report No. 1 answers it; Annex B walks from this paper's figure to its answer.
- **The Electricity Generator Levy.** A tax on generators' exceptional receipts (HMRC 2026). It took money from generators, not from bill-payers' climate charges, so it is not netted against them.
- **Exemptions that move cost between payers.** The British Industrial Competitiveness Scheme shifts what manufacturers would have paid onto taxpayers; it changes who pays, not how much is paid, and the bill still to come shows the move to taxpayers (§12.4).
- **Bill support in 2022 and 2023.** Every scheme's figure in this paper is before the government's help with energy bills in those years, such as the Energy Price Guarantee, whoever met the bill. The support was not climate policy, and it is not netted.

16 What Parliament should do

16.1 The change asked for

Parliament should require a yearly statement of policy costs that shows the bill still to come, checked each year by an independent body. The draft clauses of §2 would do it. Each addition follows from a finding. Subsections (7) and (8) follow from chapter 12: contracts, accreditations and entitlements already granted oblige bill-payers and taxpayers to pay £172.3bn, and no official account shows it. Subsection (9) follows from chapter 13: so large a figure, resting on prices no one knows and estimated by the department that signs the contracts, needs an independent check. Paragraph 7A of the Schedule follows from §7.5: the Sizewell C levy is already on bills. Subsection (10) lets later costs be added without moving any number. Chapter 11 shows the duty can be met.

16.2 Where it could go

The clauses could be moved as a new clause to a Government energy Bill, or brought as a private member's Bill. The King's Speech of 13 May 2026 said that ministers would "introduce an Energy Independence Bill" (King's Speech 2026). On 11 November 2026 Parliament's bills record showed the Energy Independence Bill before the Commons as a Government Bill, awaiting its second read-

ing, with a long title that begins "A Bill to Make provision about the regulation of the energy sector; about energy schemes" (UK Parliament 2026). A new clause could be moved to it in committee.

16.3 What is known, and how surely

From 2002 to 2024 bill-payers paid £258.6bn through climate policy on their electricity bills, and contracts, accreditations and entitlements already granted oblige them and taxpayers to pay a further £172.3bn. The first is money paid, in 2024 prices, measured, modelled and estimated in the parts §3.5 gives, with a range from the lines that carry one (§14.2); 2025's provisional £24.3bn stands apart, because its data are not final (§10.4). The second is modelled, in 2024 prices before discounting, with a range from eighteen disputed assumptions changed one at a time (§12.6).

No official body publishes either figure today. The statement this paper proposes would put both before Parliament every year, line by line, with the data to check them.

Comments and corrections: corrections@richardlyon.net.

Annex A: Derived figures

A.1 Per household, year by year

Table A.1 gives the bill already paid per household for every year, and what an average household was charged on its own bills. Each scheme's money is divided by the households of the area it runs in: the Renewables Obligation, the Climate Change Levy and the VAT on the Obligation by the United Kingdom's households, every other line by Great Britain's, and the results are added. The figure is what a household in Great Britain was charged. The divisors are the Office for National Statistics' counts: for the United Kingdom, *Families and households in the UK: 2025*, Table 5, "All households"; for Great Britain, the Labour Force Survey's households in England, Wales and Scotland. On its own bills means households' share of every line except the Climate Change Levy, which households do not pay, with the VAT on that share. Over 2002 to 2024 the two figures are £9,590 and £3,425.

Table A.1 also gives the carbon line's two parts by year: the part collected as UK carbon tax, and the rest of the carbon charge in the price (§6.2).

Table A.1 Per household and the carbon split, by year, 2024 prices, rounded separately. 2025 is provisional.

Year	Households, Great Britain	Households, UK	Paid per household	On its own bills	Carbon: tax collected	Carbon: the rest
2002	24.1 million	24.8 million	£69	£10	£0.0bn	£0.0bn
2003	24.3 million	24.9 million	£73	£11	£0.0bn	£0.0bn
2004	24.3 million	25.0 million	£72	£13	£0.0bn	£0.0bn
2005	24.5 million	25.2 million	£209	£68	£0.0bn	£3.3bn
2006	24.7 million	25.4 million	£194	£63	£0.0bn	£2.6bn
2007	24.9 million	25.6 million	£107	£29	£0.0bn	£0.1bn
2008	25.2 million	25.9 million	£242	£78	£0.1bn	£3.1bn
2009	25.3 million	26.0 million	£276	£95	£0.3bn	£3.4bn
2010	25.5 million	26.2 million	£255	£87	£0.4bn	£3.1bn
2011	25.7 million	26.4 million	£234	£77	£0.3bn	£2.2bn
2012	25.9 million	26.6 million	£232	£80	£0.2bn	£1.2bn
2013	25.9 million	26.7 million	£278	£99	£0.6bn	£1.0bn
2014	26.0 million	26.7 million	£367	£134	£1.4bn	£1.2bn
2015	26.3 million	27.0 million	£482	£177	£1.9bn	£2.4bn
2016	26.4 million	27.1 million	£541	£196	£1.6bn	£2.3bn
2017	26.4 million	27.2 million	£581	£209	£1.6bn	£2.1bn
2018	26.8 million	27.6 million	£646	£234	£2.0bn	£2.6bn
2019	27.0 million	27.8 million	£743	£267	£1.1bn	£4.3bn
2020	27.1 million	27.9 million	£759	£299	£2.0bn	£3.0bn
2021	27.4 million	28.1 million	£779	£305	£3.0bn	£4.1bn
2022	27.5 million	28.2 million	£870	£324	£3.7bn	£7.7bn

Year	Households, Great Britain	Households, UK	Paid per household	On its own bills	Carbon: tax collected	Carbon: the rest
2023	27.6 million	28.4 million	£802	£288	£2.3bn	£5.1bn
2024	27.9 million	28.6 million	£781	£284	£1.3bn	£4.3bn
2025, provisional	28.3 million	29.0 million	£852	£311	£1.3bn	£5.3bn

A.2 Present values and VAT

The present values of the bill still to come, line by line, at the Green Book rate and at commercial rates, are in Table 12.1, and the rates in §3.3. VAT is 5% on households' share of every line but the Climate Change Levy, and 0% from 1 October 2026 to 30 June 2027 in the bill still to come (§9.2); in the bill already paid it comes to £4.4bn over 2002 to 2024, and in the bill still to come to £2.7bn.

Annex B: Reconciliation, and the walk to Report No. 1

B.1 The bill already paid against official totals

Table B.1 sets each line that someone else publishes beside that total, on a matched basis, in cash. Each basis is printed as the model holds it.

Table B.1 The bill already paid against published totals, cash, rounded separately. ROC: a Renewables Obligation certificate. FiT: Feed-in Tariffs. CfD: a Contract for Difference. x: times.

Check	Years	Model	Published	Ratio	Basis
Ofgem, Renewables Obligation	2002-03 to 2024-25	£75.2bn	£74.7bn	1.007	the RO line (obligation years, UK) against Ofgem's scheme value, ROCs presented x the worth of a ROC; the line adds the mutualisation payments received in 2017-18 to 2021-22
Ofgem, Feed-in Tariffs	2010-11 to 2024-25	£16.8bn	£16.8bn	1.000	the FiT line (scheme years, GB) against the levelisation fund printed in Ofgem's annual report or annual levelisation notice for each year: the line is Ofgem's figure
HMRC, Climate Change Levy	2002-2024	£13.7bn	£13.7bn	1.000	the CCL line against HMRC's electricity declarations by calendar year (Table 1b), the UK: the line is HMRC's figure
OBR, environmental levies	2002-03 to 2024-25	£85.2bn	£86.6bn	0.984	the RO line (obligation years) and CfD (LCCC's payments, April-March) against the OBR's environmental levies outturn (public finances databank, October 2026) less the Warm Home Discount and the CRC Energy Efficiency Scheme (ONS's series), which the model does not count; the OBR's figure holds no Capacity Market, FiT or green gas levy in these years
Ofgem, price cap policy costs, per typical household	2019-20 to 2025-26	£730	£735	0.993	The Renewables Obligation and Feed-in Tariffs only; Ofgem's side a forward allowance, not money paid; the Contracts for Difference and carbon in neither side (§4.2)

The Contracts for Difference line is checked day by day against LCCC's own totals: over 608 matched days it differs by −0.62%, inside a tolerance of 2%. The OBR check leaves a gap of −£1.36bn. Of it, −£1.53bn is in the Renewables Obligation, where the ONS's receipts for the certificates run above Ofgem's value of them in most years from 2012-13; the ONS does not publish how it values the certificates, so this part is named and sized, not explained. The price-cap check's one weak year, 2021-22, is 0.94, and Feed-in Tariffs explain it (§4.2).

B.2 The bill still to come against official forecasts

Table B.2 gives each forward check as the model's figure over the published one, by calendar year, in cash.

Table B.2 The bill still to come against official forecasts: the model over the published figure.

Check	2026	2027	2028	2029	2030	2031
OBR, Contracts for Difference	1.75	2.54	1.50	1.32	1.48	1.67
OBR, Renewables Obligation	0.96	0.95	0.95	0.95	0.94	0.93

Check	2026	2027	2028	2029	2030	2031
OBR, Sizewell C	1.09	1.18	0.90	0.91	0.92	0.92
OBR, Capacity Market, whole levy	0.95	1.03	0.97	1.01	0.60	0.27
Budget 2025, the Exchequer's part of the RO	0.96	0.93	0.90	0.87	none	none

Two further checks cover the join with the bill already paid and LCCC's own forecast. The model's 2026 is 0.99 times the 2025 figure paid for the Contracts for Difference, 0.98 times 2024's for the Renewables Obligation, 1.01 times 2024's for Feed-in Tariffs and 1.60 times 2025's for the Capacity Market. For October 2026 to March 2027 its renewable Contracts for Difference are 2.33 times LCCC's forecast.

B.3 Why the wider gaps arise

The model's own rule is that a gap wider than its margin, 15%, passes only with a written explanation, and each is given here.

The OBR's Contracts for Difference, 2026 to 2031. The cause is the market price. The model prices power on DESNZ's central path; the OBR prices on the market, as the model's notes put it. Run at flat prices, the model meets the OBR's figure at £109.59 per MWh in 2026, £99.33 in 2027, £75.37 in 2028, £68.63 in 2029, £73.39 in 2030 and £76.66 in 2031, in 2024 prices. From 2028 a slower build in the OBR's forecast than LCCC's expected dates could close part of the gap instead: contracts not yet built are 12% of the model's 2028, 24% of 2029, 37% of 2030 and 53% of 2031.

LCCC's forecast, October 2026 to March 2027. The same cause. LCCC forecasts at market prices; run at LCCC's baseload market reference price for winter 2026, the model is 1.02 times LCCC's figure.

The Capacity Market, 2026 against 2025. A higher auction price. Both years count the same share of the whole levy, but the four-year-ahead auction for 2026/27 cleared at a higher price than the one for 2025/26.

The OBR's Capacity Market, 2030 and 2031. Auctions not yet held. The model counts only agreements already signed; the OBR's forecast includes the capacity still to be bought, and from October 2030 only the multi-year agreements of earlier auctions remain in the model.

The OBR's Sizewell C, 2027. The model is fitted to the revenue the Secretary of State allowed for Sizewell C's first charging year, which runs from November 2025 to March 2027; the OBR's levy for the same months is lower, and calendar 2027 carries that difference. From 2028 the model is below the OBR's figure, at 0.90 to 0.92 times it.

B.4 The walk to Report No. 1

Table B.3 walks from this paper's money paid to the series' net measure, Report No. 1's extra cost, step by step, for 2002 to 2024, in 2024 prices. The two figures answer different questions.

Table B.3 From money paid to the extra cost, 2002 to 2024, 2024 prices, rounded separately. Each step's wording is the model's, except the power-before-carbon row's.

Step	2002–24
Money paid: Report No. 2's twelve lines, gross	£258.6bn
Contracts for Difference: counted alike in both reports	£0.0bn
Capacity Market, the part net zero caused: counted alike	£0.0bn
Carbon in the price of power: counted alike	£0.0bn
High-voltage grid above the gas-led alternative's: counted alike	£0.0bn
Balancing and constraints above the gas-led alternative's: counted alike	£0.0bn
Renewables Obligation: No. 1 counts Great Britain only, by calendar year, above the 2001 levy	−£7.2bn
Feed-in Tariffs: No. 1 counts by calendar year, No. 2 by scheme year	−£0.4bn
Climate Change Levy: No. 1 counts only the levy above its 2001 rate, Great Britain only	−£20.0bn

Step	2002–24
VAT: No. 1 charges it on households' share of the extra cost, No. 2 on the money paid	–£1.5bn
Generators' grid and balancing charges: No. 1 counts all net zero added, No. 2 only what unsubsidised stations pay	£2.4bn
Suppliers' energy-saving schemes on electricity bills: in No. 1 only	£9.2bn
Power itself, before carbon and generators' grid charges: in Report No. 1's model, wholesale power without its carbon charges and without the generators' share of grid and balancing charges cost £100.7bn less than on the gas-led alternative.	–£100.7bn
Extra cost: Report No. 1's figure, net	£140.3bn

The table has twelve steps between the two figures. Five lines are counted alike in both reports, so their steps are zero. The largest step is power itself, before carbon. The Climate Change Levy's step is larger than the whole line. Report No. 1 counts the levy only above its 2001 rate, raised each year with CPIH. It also takes off the levy the gas-led alternative would have paid on output from the renewable technologies it replaces that was exempt through levy exemption certificates, up to the renewable output it replaces. It counts that output to March 2015, the end of the last Ofgem file it reads. The option in §6.3 instead holds the 2001 rate in cash and charges it only on the electricity actually taxed. The Renewables Obligation's step includes the Fossil Fuel Levy at its 2001 level, which Report No. 1 takes off because the gas-led alternative would have paid it too. The energy-saving schemes' step, £9.2bn, is Report No. 1's figure, above their 2001 level; §6.5's £10.2bn is the same schemes before that is taken off.

The grid and balancing charges Report No. 1 counts for generators sit inside its price of power. Report No. 1 takes the generators' share out of its grid and balancing lines on both the actual system and the gas-led alternative, and counts the part the policies added by taking it out of the gas-led alternative's market price; that is why the grid and balancing rows here are zero. This paper counts only the part of that share paid by stations with no subsidy (§8.6), so the generators' step is the part paid by stations with one, and the power step is Report No. 1's price of power with the whole share taken out. The walk stops at 2024, the last year both reports count. Its year-by-year rows are in the published data (§11.2).

Annex C: Versions and known issues

C.1 The two models

The bill already paid is read from model-bill-already-paid, version 1.6.3, tag refs/tags/v1.6.3, whose figures file has the SHA-256 fingerprint 0cd0a41b189d1c1b1e27a6782101e19cd053d3670aa56918eaf8d9c5148a98c3. The bill still to come is read from model-bill-still-to-come, version 1.4.0, tag v1.4.0, fingerprint c42a6c095118ebab9394492876493a3d6673f5ced4ecd5935ed1cc16686a2b75. Both are published with this paper, and the Subsidy Clock reads the first.

C.2 What Report No. 1's review could move

The indirect lines read Report No. 1's model, release v4-s43, whose run file has the fingerprint dccd97d56efa9b4b26bc68604b8ae7f0204e40a9c1126a653886e268d28b49e4. Report No. 1 is open for public review, and a correction there could move five things here: the carbon line, which that release computes; the gas-led alternative's grid and balancing, and so the grid and balancing lines and power stations' share of those charges; the share of the Capacity Market that net zero caused; and households' share of electricity, on which VAT and the household figures rest. A change to any of them would be a new version of this paper's model, and of this paper.

C.3 Known issues

- The OBR check leaves the Renewables Obligation's part of its gap unexplained, because the ONS does not publish how it values the certificates (Annex B).
- Every 2025 figure is provisional: the Renewables Obligation before its late-payment fund is paid out, Feed-in Tariffs before Ofgem's annual reconciliation, carbon before the final receipts from Carbon Price Support and UK allowance auctions, the Climate Change Levy before HMRC's final receipts, the Sizewell C levy before its later settlement runs, and power stations' share before Ofgem's report of Feed-in Tariff output for 2025-26.
- Switch-off payments for 2010 to 2015 come from National Grid's own monthly reports, because Elexon holds no record before November 2015; for 2010 to 2013 its yearly totals are spread over calendar years.
- The bill still to come counts the extension of the zero rate of VAT that Budget 2026 announced, which was not yet law at the cut-off date; counted only over the period in law, it would be £34.8m larger. Within each year the cut is spread by days (§9.2).
- Northern Ireland is treated differently in law. The order keeps electricity for domestic use there at the reduced rate (art. 4). Budget 2026 says that "Extended VAT relief is expected to apply in Northern Ireland from April 2027" (HM Treasury 2026b, para 3.4). The model does not split households by area, so over the order's period it zero-rates Northern Ireland's households too. The VAT this leaves out is at most £4.0m. It falls on the Renewables Obligation, the one UK-wide line of the bill still to come and so the one Northern Ireland's households pay, and it is counted on the Obligation's stations in Northern Ireland. It is an upper bound, because Northern Ireland's stations make far more certificates (5.5 million in 2024-25) than Northern Ireland's suppliers present (1.38 million), so most are used outside Northern Ireland's obligation (§9.2).
- Power stations' share of grid and balancing charges, the part not paid out of subsidy, is estimated, because the share is not split between stations with a subsidy and those without from any record. It is spread by output, although the grid charge falls mostly on capacity and differs by zone; the United Kingdom's output stands for Great Britain's charges; subsidised stations are taken to pay all their share out of subsidy, and the rest to get theirs back through the price in full. In 2010 to 2014 Feed-in Tariff output may also sit inside the digest's Renewables Obligation row, which would make the line slightly too small (§8.6).
- The grid and balancing lines have no range, because the gas-led alternative has none in the published figures; §14.2 gives the headline without them.
- The range for how fully the carbon charge passed into the price moves the VAT on the carbon with it, but the carbon price range of 2005 to 2012 and the Capacity Market's low share move no VAT. The VAT they leave out is far too small to change which line sets either end of the headline's range (§14.2).

C.4 The next version

The next version of each model will take in the final figures for 2025 as they are published, and Ofgem's reconciliation of Feed-in Tariffs for 2025-26. Any figure that moves will be listed with its old and new value, and this annex will say what moved.

References

BEIS 2016. Department for Business, Energy and Industrial Strategy, *Electricity Generation Costs*, November 2016. Cited at §3.2.

Budget Responsibility and National Audit Act 2011 (c. 4), sections 4 and 5. Cited at §13.1.

Castagneto-Gissey 2014. G. Castagneto-Gissey, "How competitive are EU electricity markets? An assessment of ETS Phase II", *Energy Policy* 73 (2014), 278-297. Cited at §14.2.

Castagneto Gissey and others 2018. G. Castagneto Gissey, M. Grubb, I. Staffell, P. Agnolucci and P. Ekins, *Wholesale cost reflectivity of GB and European electricity prices*, UCL, for Ofgem, September 2018. Cited at §14.2.

CCC 2017. Climate Change Committee, *Energy Prices and Bills – impacts of meeting carbon budgets*, March 2017. Cited at §4.1, §6.2.

CCC 2025. Climate Change Committee, *The Seventh Carbon Budget*, February 2025. Cited at §6.2.

Climate Change Act 2008 (c. 27), as amended. https://www.legislation.gov.uk/ukpga/2008/27. Cited at §2.1.

DECC 2013. Department of Energy and Climate Change, *Electricity Generation Costs 2013*, July 2013. Cited at §3.2.

DECC 2014. Department of Energy and Climate Change, *Estimated impacts of energy and climate change policies on energy prices and bills*, 2014. Cited at §2.3, §4.1, §4.2, §14.2.

DESNZ 2023. Department for Energy Security and Net Zero, *Valuation of energy use and greenhouse gas (GHG) emissions: supplementary guidance to the HM Treasury Green Book*, November 2023. Cited at §6.2.

DESNZ 2025. Department for Energy Security and Net Zero, *Electricity Generation Costs 2025*, Table 6. Cited at §3.3.

DESNZ, Energy and emissions projections 2024 to 2050, Annex M, price assumptions. Cited at §12.5.

Directive 2003/87/EC of the European Parliament and of the Council establishing a scheme for greenhouse gas emission allowance trading within the Community, OJ L 275, 25 October 2003. Cited at §6.2.

Electricity Act 1989 (c. 29), sections 32 and 32LA, as amended. https://www.legislation.gov.uk/ukpga/1989/29. Cited at §3.3.

Energy Act 2008 (c. 32), section 41, as amended. https://www.legislation.gov.uk/ukpga/2008/32/section/41. Cited at §3.3.

Finance Act 2000 (c. 17), Schedule 6, paragraph 42A, as amended. https://www.legislation.gov.uk/ukpga/2000/17/schedule/6/paragraph/42A. Cited at §6.2.

Finance (No. 2) Act 2015 (c. 33), section 49, as enacted. https://www.legislation.gov.uk/ukpga/2015/33/section/49/enacted. Cited at §6.3.

Gross, MacIver and Blyth 2022. R. Gross, C. MacIver and W. Blyth, *Can existing renewables and nuclear help keep prices down next winter? The case for a 'pot zero' CfD auction*, UKERC Discussion Paper, April 2022. https://ukerc.ac.uk/publications/can-renewables-help-keep-bills-down/. Cited at §12.7.

Guo and Castagneto Gissey 2021. B. Guo and G. Castagneto Gissey, "Cost Pass-through in the British Wholesale Electricity Market", EPRG Working Paper 1937, University of Cambridge, version of 1 August 2021 (published in *Energy Economics*, 2021). Cited at §14.2.

Guo and Newbery 2021. B. Guo and D. Newbery, "The Cost of Carbon Leakage: Britain's Carbon Price Support and Cross-border Electricity Trade", EPRG Working Paper 2005, University of Cambridge, version of 8 December 2021 (published in *The Energy Journal* 44(1)). Cited at §14.2.

HC Deb, 21 October 2026. House of Commons, "Jackdaw Gasfield", col. 1144 (Michael Shanks). Cited at §4.1.

HL Deb, 4 June 2026. House of Lords Grand Committee, "UK Electricity Prices" (Lord Whitehead). Cited at §4.1.

Hinkley Point C contract for difference, November 2022 version, the Initial Strike Price clause. Cited at §12.2.

HM Treasury 2025. *Budget 2025: Policy Costings*, November 2025, p.12. Cited at §1.2, §9.2, §12.4.

HM Treasury 2026a. *The Green Book: UK government guidance on appraisal*, 2026 edition, as revised in October 2026, para 6.54. Cited at §1.2, §3.3.

HM Treasury 2026b. *Budget 2026*, 28 October 2026, para 3.4, para 6.31 and para 6.210. Cited at §9.2, §12.4.

HMRC 2015. HM Revenue and Customs, "Climate Change Levy: removal of exemption for electricity from renewable sources", 8 July 2015 (UK Government Web Archive copy). Cited at §3.6, §6.3.

HMRC 2018. HM Revenue and Customs, *Excise Notice CCL1: a general guide to Climate Change Levy*, updated 16 March 2018 (UK Government Web Archive copy). Cited at §6.3.

HMRC 2026. HM Revenue and Customs, *Corporation Tax statistics 2026*, commentary. Cited at §15.2.

ICAP, UK ETS factsheet. International Carbon Action Partnership, "UK Emissions Trading Scheme (UK ETS)". https://icapcarbonaction.com/en/ets/uk-emissions-trading-scheme-uk-ets. Cited at §6.2.

King's Speech 2026. The King's Speech, 13 May 2026, with the Government's briefing notes. Cited at §16.2.

LCCC 2022. Low Carbon Contracts Company, *Annual Report 2021-2022*. Cited at §7.3.

LCCC 2023. Low Carbon Contracts Company, *Annual Report 2022-23*. Cited at §7.3.

LCCC 2026. Low Carbon Contracts Company, market reference prices, Winter 2026 baseload market reference price. Cited at §12.7.

Lyon 2026a. R. Lyon, *Reliable Britain: what Britain's electricity would have cost on gas*, technical note to Report No. 1, version 1.0.3, November 2026. richardlyon.net. Cited at §6.3.

Lyon 2026b. R. Lyon, *The Energy Trap*, Swift Press, 2026. Cited at Independence and declaration.

NAO 2016. National Audit Office, *Controlling the consumer-funded costs of energy policies: The Levy Control Framework*, HC 725, 18 October 2016. Cited at §2.3, §3.1.

NAO 2026. Comptroller and Auditor General, *Sizewell C*, HC 33, Session 2026-27, National Audit Office, 20 May 2026, para 2.29. Cited at §12.6.

National Grid 2017. National Grid, *Monthly Balancing Services Summary*, eight monthly reports from August 2013 to March 2017, section "Payments to Wind Powered Generation". Cited at §7.4.

NESO 2025. National Energy System Operator, *2025 Annual Balancing Costs Report*. Cited at §8.3.

Nuclear Energy (Financing) Act 2022 (c. 15), as amended. https://www.legislation.gov.uk/ukpga/2022/15. Cited at §2.2.

O'Shea, Horne and Maslin 2025. C. O'Shea, P. Horne and M. Maslin, "Modelling the long-term financial benefits of UK investment in wind energy generation", UCL Open Environment Preprints, version 1, 23 October 2025; a preprint, not peer reviewed. https://doi.org/10.14324/ucloepreprints.290.v1. Cited at §3.1, §4.1.

OBR 2026. Office for Budget Responsibility, *Economic and fiscal outlook*, October 2026, Table 4.20 and para 4.47. Cited at §2.3.

Octopus Energy 2026. Wasted Wind tracker, the method paragraph. https://wastedwind.energy. Cited at §8.2.

Ofgem 2022. Ofgem, *Default tariff cap update from 1 October 2022*, letter of 26 August 2022. Cited at §4.1.

Ofgem 2023. Ofgem, *Guidance on our approach to the Economic Regulation of Sizewell C*, 6 November 2023, para 4.9. Cited at §12.6.

Ofgem 2025. Ofgem, *RIIO-3 Final Determinations: Overview*, 4 December 2025. Cited at §8.4.

Ofgem 2026. Ofgem, *Summary of changes to energy price cap, 1 October to 31 December 2026*, letter of 26 August 2026, with Annex 1. Cited at §4.1.

Ofgem, price cap Annex 4. Ofgem, *Annex 4: Policy cost allowance methodology*, v1.25, with its change log. Cited at §2.3, §4.2.

Renewables Obligation Order 2015 (SI 2015/1947), article 44; Renewables Obligation (Scotland) Order 2009 (SSI 2009/140), article 17A; Renewables Obligation Order (Northern Ireland) 2009 (SR 2009/154), article 18A. Cited at §12.2.

SAU 2026. Subsidy Advice Unit, *Report on the British Industrial Competitiveness Scheme*, 24 July 2026, para 1.8. Cited at §12.4.

Sijm, Neuhoff and Chen 2006. J. Sijm, K. Neuhoff and Y. Chen, "CO2 cost pass-through and windfall profits in the power sector", *Climate Policy* 6(1) (2006), 49-72. Cited at §14.2.

Sizewell C licence. Nuclear RAB licence special conditions, version 7: definitions of the initial WACC, Periodic Review and the Higher Regulatory Threshold. Cited at §12.6, §15.1.

Social Security (Contributions) (Re-rating and National Insurance Funds Payments) Order 2001 (SI 2001/477), article 2. Cited at §6.3.

UK Parliament 2026. Bills record for the Energy Independence Bill (Bill 4319), 11 November 2026. https://bills.parliament.uk. Cited at §16.2.

Value Added Tax Act 1994 (c. 23), section 29A and Schedule 7A. Cited at §9.2.

Value Added Tax (Supplies of Domestic Electricity) Order 2026 (SI 2026/987). Cited at §9.2.