
Additionality at the policy level: Lessons from the UK

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I'm going to talk about

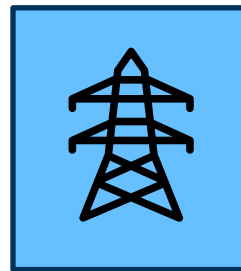
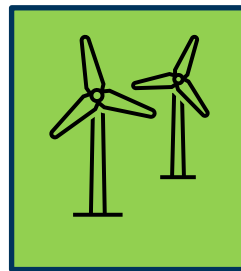
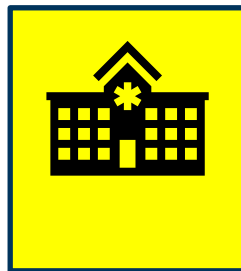
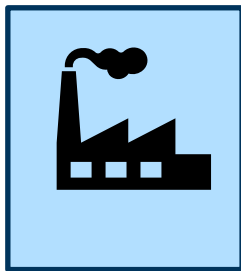
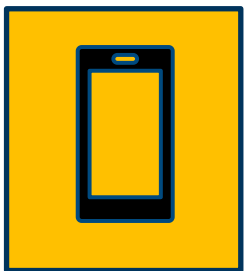
1. The UK approach to energy policy evaluations
2. Evaluation of voluntary agreement scheme (Climate Change Agreements)



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UK: Wide range of policy-level evaluation

- UK energy evaluations across most policy areas, dedicated evaluation teams
- Understand not only what has happened (costs, benefits and energy savings) but also:
 - How policies operate?
 - What works for different people and businesses?
 - Why?



UK: Methods, approaches and delivery

- Start with a **theory of change**: how the intervention is expected to work
- Effective **monitoring** as a foundation: continuous measurement and performance review of an intervention
- **Evaluation planning** so have coherent use of methods
- Use of **mixed methods**: approaches with the collection of multiple sources of quantitative and qualitative primary data
- Where data is available include **quasi-experimental methods** and **administrative data**

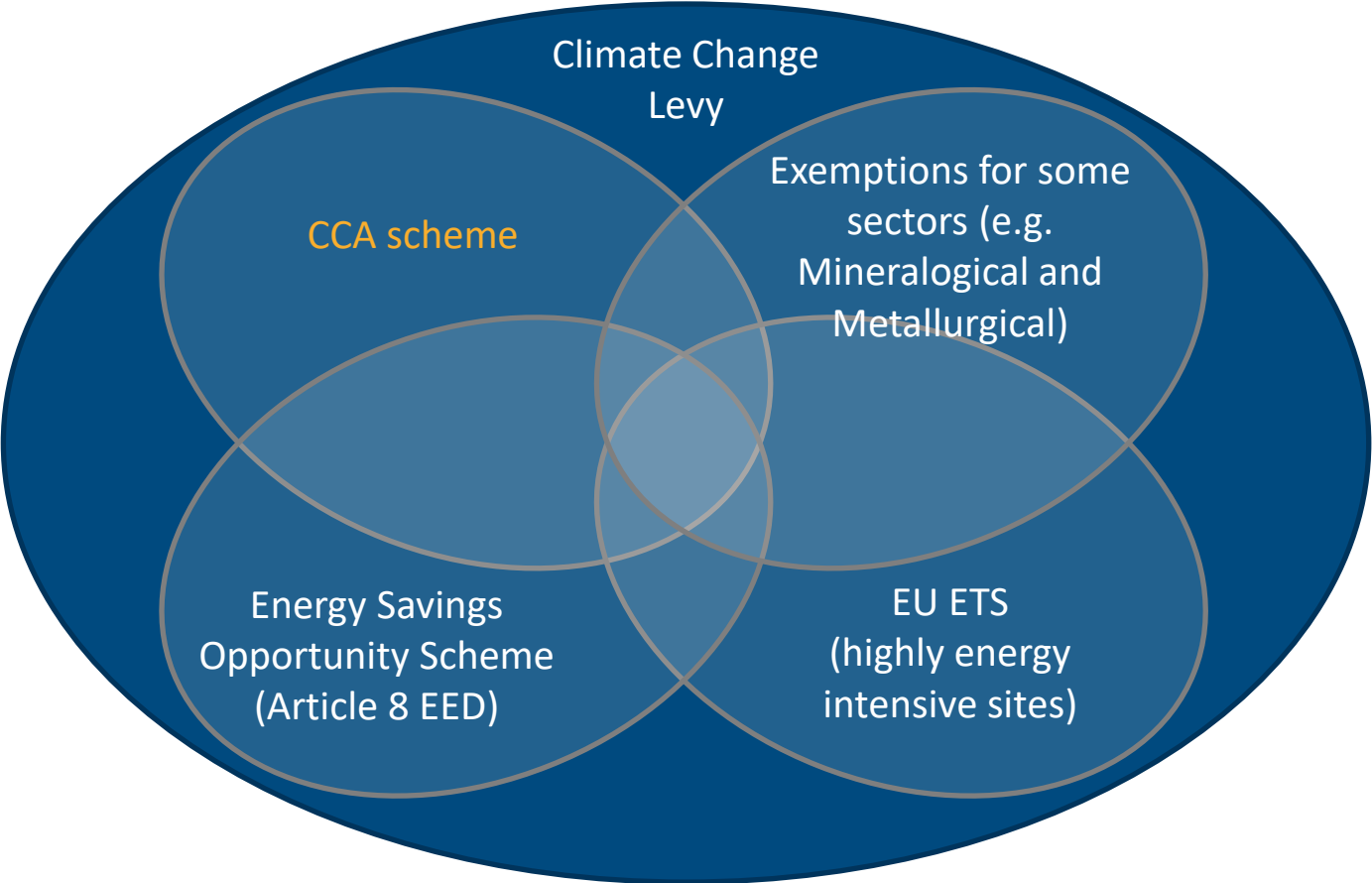
What is the Climate Change Agreements scheme?

- A **voluntary agreement scheme** for 53 energy- or trade-intensive industry sectors in the UK
- First scheme ran from 2001 to 2012
- Second scheme **2013 to 2025** (was 2023)
- Approximately 2,600 firms are covered by sector umbrella agreements and commit to meeting **energy or carbon targets**
- Participants receive **discounts on carbon taxes** (Climate Change Levy (and –formerly – exemption from CRC allowances)
- Includes chemicals, supermarkets, bakeries, agricultural and laundries
- Scheme has twin aims: improving energy efficiency and supporting competitiveness



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CCAs: Disentangling complex policy influences:



High level evaluation questions

1. What have been the **outcomes** observed during the second CCA scheme?
2. What has been the **impact** of the CCA scheme and can any identified energy/carbon savings or increased competitiveness be **attributed** to the CCA?
How did the CCA generate any attributed effects?
3. Is the CCA scheme offering **value for money** for Government, participants and society?
4. How effective and efficient has the **delivery** of the CCA scheme been?
5. What can we learn for any potential future iterations of the CCA scheme and **future policy**?

Evaluation workstreams

Evaluation framework (Contribution analysis)

Existing data

Scoping: Re-analysis of previous evaluations for CCA and non-CCA participants

Scoping: International literature review on voluntary agreements

Analysis of scheme data

Social research

Online survey with 39 sector bodies and in-depth interviews with 19 sector bodies

In-depth interviews with 23 CCA participants, 9 non-participants and 3 energy consultancies

Quantitative survey - reported behaviour and attitudes from 387 CCA participants

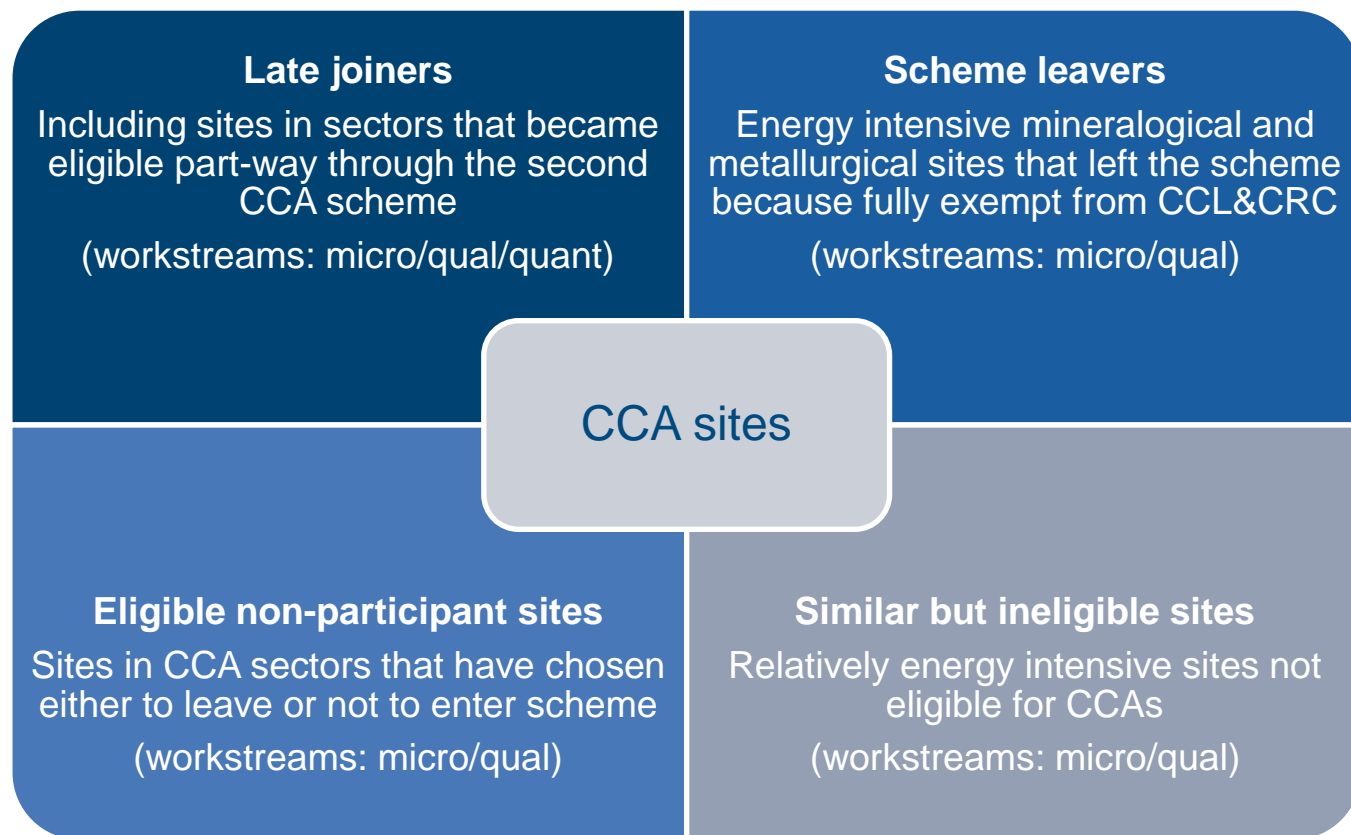
Modelling

Micro-econometric analysis, comparing energy meter data and economic data for CCA and non-CCA sites

Macro-economic modelling of CCA economic impacts

Cost-effectiveness analysis drawing on other workstreams

Several different comparison groups used to form the counterfactual and assess impact:



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CCAs: How did we assess additionality?

- **Surveys of scheme participants:**

“What would have happened if you had not participated in the CCA scheme?”

“Would you have taken more actions/ same time frame?”

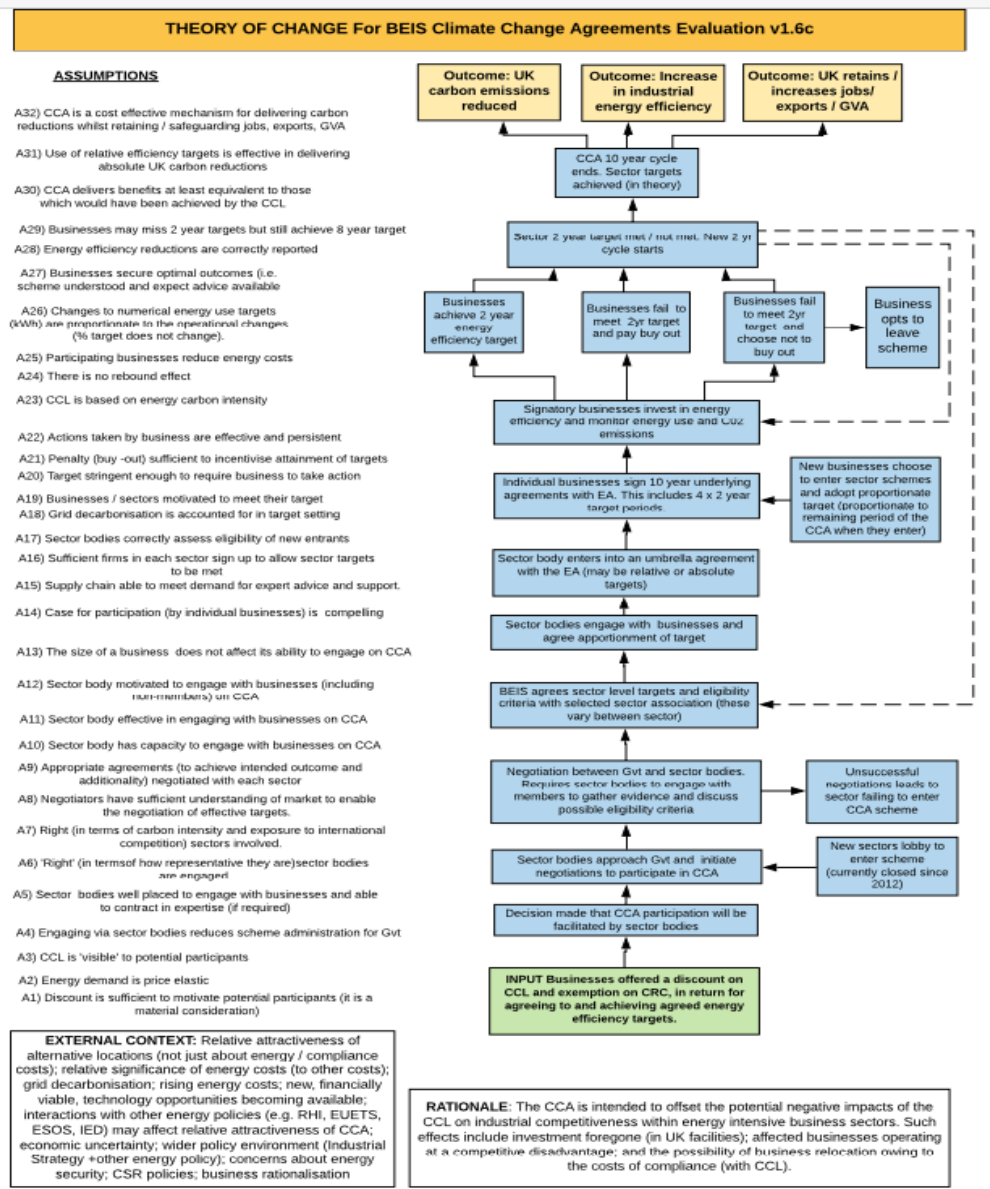
“What other actions have been taken to improve energy efficiency?”

- **Micro-econometric modelling:** Were there differences in energy and economic performance between CCA and similar non-CCA sites that were attributable scheme?
- **Scheme data analysis:** Characterise the performance of different types of participants and the contribution of different sectors (including those who had left the scheme).
- **Qualitative research** with
 - Scheme participants: How/why the scheme has affected them or not;
 - Non-participants: What happened to energy efficiency outside the scheme

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A Theory of Change was developed, summarizing the contribution story and then tested and refined:



Findings from all workstreams on energy efficiency

Micro: electricity consumption on CCA sites 4% – 11% lower than on sites paying full CCL. Min-met firms leaving the scheme showed slight increased electricity consumption. Gas consumption and electricity intensity lower for certain sectors.

Macro: Energy consumption (electricity and gas) was slightly lower in industrial sectors significantly affected by the CCA, compared to the same sectors in other European countries. Non-CCA factors may play a role.

Scheme data: Where firms missed their CCA targets, they underperformed by a small margin - 6.5% of reported emissions. Where they exceeded targets, the surplus represented 13.5% of emissions.

Quantitative survey: Half of CCA firms would have taken all the same actions anyway. A minority reported that CCA made a significant difference to energy efficiency action; others reported slight CCA influence.

Qualitative research: Sector bodies reported that targets are challenging but participant responses more mixed. Some types of firms showed credible evidence that CCAs encouraged slightly more action on energy efficiency than non-CCA firms.

Conclusion: CCAs made a modest contribution to energy efficiency

For which types of firm did CCA have more/less additionality on energy efficiency:

'Squeezed'

- In highly competitive market, not public-facing, old equipment and little ability to invest, challenging targets – **still not doing much**

'Keen'

- Moderate energy intensity, some energy efficiency drivers, compliance culture, challenging targets, keen energy manager, CCL savings help to fund measures – **doing a bit more**

Less CCA influence on energy efficiency



More CCA influence on energy efficiency

'Other drivers'

- High energy intensity and/or strong existing drivers for energy efficiency (e.g. large, public-facing subject to other energy policies) – **have done it or are doing it already**

'Small'

- Small, energy intensive, worthwhile to participate but too small for other policies, limited organisational capacity no previous systematic approach to energy efficiency. CCA used as energy management tool – **doing more**

More information

- UK Government guidance on evaluation:
<https://www.gov.uk/government/publications/the-magenta-book>
- Climate Change Agreements Evaluation Report:
<https://www.gov.uk/government/publications/second-climate-change-agreements-scheme-evaluation>