

The social benefits of climate action

2. Electric vehicles

Reducing carbon is only one part of the climate action story: **multiple other benefits can also be delivered by low carbon measures**. These benefits come in the form of improvements to the environment, health and wellbeing, as well as increased economic productivity.

This guide provides monetised estimates for several socio-economic co-benefits of climate action. Highlighting these additional benefits can help to build broader support for decisions on climate that deliver on multiple priorities at the same time.



How do we value the social benefits of shifting from fossil fuel to electric vehicles?

Electric vehicles (EVs) eliminate tailpipe emissions, reducing air pollution and associated respiratory and cardiovascular disease, in addition to being quieter than petrol and diesel cars. As a result, we can expect to experience a longer life expectancy and a better quality of life than if we continue to use fossil fuel cars.

The Co-Benefits team at Edinburgh Climate Change Institute (ECCI) model travel patterns using surveys and transport studies. We calculate the difference in social impacts between the baseline (current use of petrol and diesel cars) and the climate action (switching to EVs).

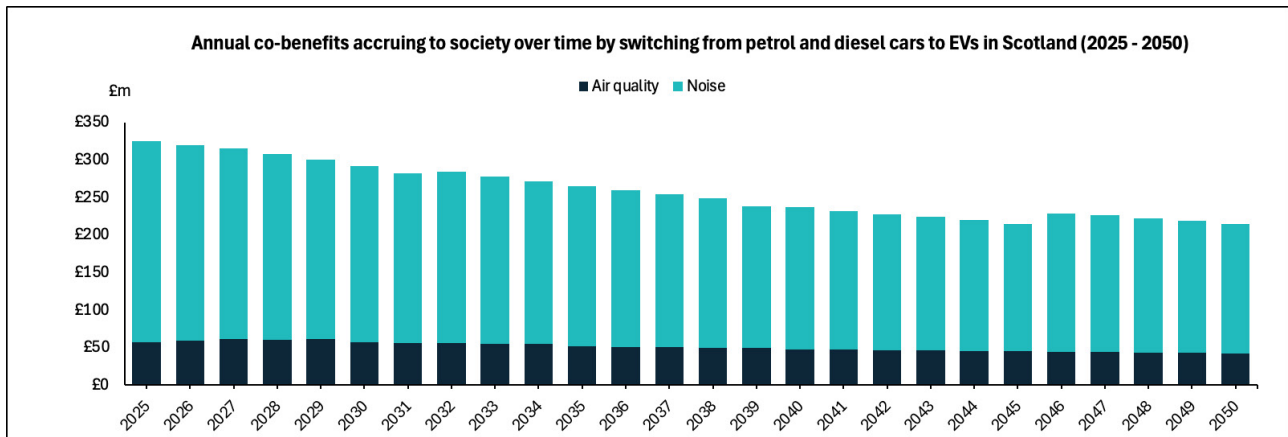
The benefits are expressed as monetary values according to government guidance: they don't represent direct financial benefits but are wider savings and avoided costs for your area. In short, the figures won't appear as revenue in your balance sheets, but they can have significant positive impacts on future costs: for example, savings on social and healthcare spending. Ultimately, helping to build healthier, happier communities.

How large are these benefits?

The following table shows the estimated co-benefits from shifting 20% of petrol and diesel car journeys to EVs for Aberdeen City Council. This provides an example of what we could see at a local authority level, compared to Scotland as a whole.

Co-Benefit Type	Per person - Aberdeen City (£)	Per person - Scotland (£)	Total Aberdeen City (£ million)	Total - Scotland (£ million)
Reduced air pollution	£243	£243	£55.2	£1,330
Reduced noise pollution	£1,111	£981	£252.8	£5,378
Total	£1,354	£1,224	£308	£6,708

The graph below indicates how benefits are distributed across the time period 2025-2050.



Note, the decrease from 2025 to 2050 is due to discounting future prices in addition to assumptions in the baseline travel patterns from the UK Climate Change Committee. These findings illustrate how local authorities can deliver key service outcomes, while reducing demand on wider public budgets.

The methodology used is compliant with the [UK Government Green Book](#). This means that the estimates are conservative, as they exclude a wider set of benefits for which Green Book methods are not available. In addition, the co-benefit values do not include the financial savings that will benefit individuals and businesses from the cheaper running costs of EVs compared to fossil fuel cars.

How do we shift people from fossil fuel cars to EVs?

Interventions are the actions your council commits to delivering to reach your net zero targets.

Understanding and uploading effective interventions onto the ClimateView platform is the first step on the SCIS journey. For this activity shift, interventions could include:

- Forming public-private partnerships to enable the delivery of [comprehensive charging infrastructure](#) within local authority boundaries that also allows for connectivity with other regions.

- Designing for safety, simplicity and affordability, ensuring long term maintenance is considered within the process to build consumer confidence.
- Planning for equitable access to ensure that disadvantaged and more remote communities are not left behind in the transition to EVs.

For more ideas, see Transport Scotland's report on [Public Electric \(EV\) infrastructure in Scotland – Opportunities for Growth.](#)

Further information

- [Sign up for our latest news and resources.](#)
- Explore the social benefits of climate action for your area based on the [UK Co-Benefits Atlas](#).

- Visit the [SCIS website](#).
- To find out more or request bespoke analysis for your local authority or project, email the CO-BENS team: cobens@ed.ac.uk.